DESIGN DESIGNATION		FAIRFIELD COUNTY	LICKING COUNTY
Current Year ADT (1988)	=	56,625	32,400
Design Year ADT (2008)	=	79,725	45,360
D H V (2008)	=	7,930	4,536
D (Directional Distribution)	=	Equal	Equal
T (Percent B & C Trucks)	=	14%	23%
V (Design Speed)	=	70	70
Legal Speed	=	(55 URBAN / 65 RURAL)	65
Functional Classification	=	Interstate	Interstate

DESIGN EXCEPTION	APPROVED
Horizontal Clearance (S.R. 158)	2/22/88

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CALC. BY	D.M.
DATE	2-29-88
CHECK. BY	R.M.
DATE	3-4-88

	OHIO
IR-70-7 (101) 117	FHWA REGION 5
	FEDERAL PROJECT

1 / 126

FAI-70-0.00
LIC-70-0.00

FAI-70-0.00
LIC-70-0.00

CITY OF COLUMBUS, VILLAGE OF PICKERINGTON, VILLAGE OF KIRKERSVILLE
VIOLET AND ETNA TOWNSHIP
FAIRFIELD AND LICKING COUNTY

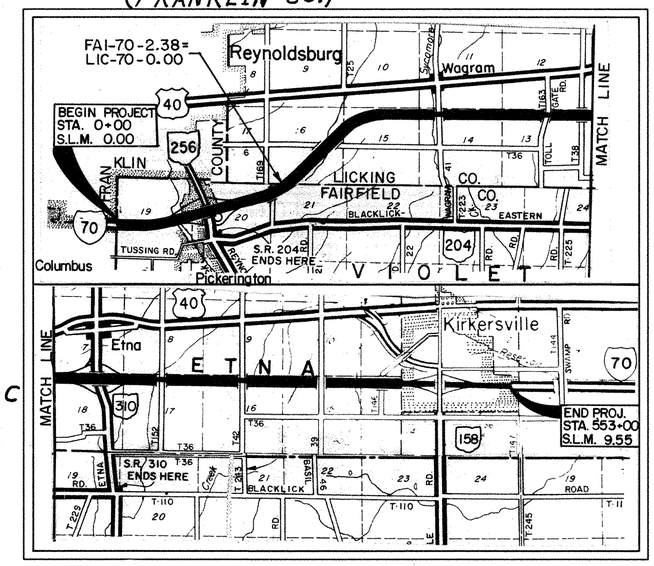
CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line
Fence Line (existing) (proposed)
Center Line
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) RW
Limited Access & Right of Way LA&RW
Existing Right of Way
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)
Detour

INDEX OF SHEETS

LINE DATA

BEGIN PROJECT	STA. 0+00
STATION EQUATION	STA. 641+09.49 BACK = STA. 0+00.00 AHEAD
STATION EQUATION	STA. 143+21.06 BACK = STA. 250+00.00 AHEAD
STATION EQUATION	STA. 733+97.69 BACK = STA. 550+00.00 AHEAD
END PROJECT	STA. 553+00
NET LENGTH OF PROJECT =	63,018.75 LIN. FT. OR 11.935 MILES
BEGIN WORK	STA. 586+50
STATION EQUATION	STA. 641+09.49 BACK = STA. 0+00.00 AHEAD
STATION EQUATION	STA. 143+21.06 BACK = STA. 250+00.00 AHEAD
STATION EQUATION	STA. 733+97.69 BACK = STA. 550+00.00 AHEAD
END WORK	STA. 600+67.19
NET LENGTH OF WORK =	7324543 LIN. FT. OR 13.872 MILES



LOCATION MAP

SCALE IN MILES
0 1 2 3 4

Portion to be Improved
State & Federal Routes
Other Roads

SCALES

Plan
0 50' 100'

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll Free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway by action of the Director in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.

1987 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway, except as noted on sheet 22, and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

SUPPLEMENTAL SPECIFICATIONS			
846	11-24-86	849	12-24-85
847	10-17-83	850	2-25-86
947	10-17-83	852	6-10-87
824	10-8-82	853	6-26-78
921	12-4-72	949	9-26-86
		952	6-10-87
		956	6-26-78

Approved John W. Hagan
Date 3-3-88 District Deputy Director of Transportation

Approved R. D. Hershberger
Date 3-10-88 Engineer, Bureau of Bridges and Structural Design

Approved George E. Mavromm
Date 3-25-88 Chief Engineer, Planning & Design

Approved Bernard R. Hurst
Date 3-25-88 Director, Department of Transportation

Plan Prepared By:
DISTRICT NO. 5
OHIO DEPARTMENT OF TRANSPORTATION

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
BP-5	10-1-87	TC-72.20	2-26-82	MC-4	7-26-76	TC-18.24	4-25-79
GR-1	1-11-85	MT-99.10	11-14-86	TC-61.10	4-5-82	TC-31.21	3-6-79
GR-2B	2-5-82	MT-99.20	11-14-86	CB-2-6	5-1-79	TC-32.11	3-21-79
GR-3	1-21-85	BR-1	5-29-79	HW-4A	4-1-80	TC-51.10	1-20-84
GR-4	2-5-82	EXJ-2-81	4-2-84R	MC-11	8-1-78	TC-51.11	1-20-84
GR-4A	1-30-84	SD-1-65	11-8-65	MH-2	6-12-75	TC-65.10	2-26-82
GR-5	2-5-82	CB-2-2B	5-1-79	TC-22.20	3-1-79	TC-65.11	4-5-82
GR-6	2-5-82	CB-4	11-10-83	GR-7	2-5-82		
GR-6A	2-5-82	CB-5	11-10-83				
MC-9	1-30-84	CB-8	11-10-83				
MC-9A	1-11-85	MH-1	12-18-84				
TC-35.10	8-29-84	MH-3	12-18-84				
TC-71.10	4-9-79						

Project FAI-70-0.00 LIC-70-0.00
Date of Letting _____ 19__ Contract No. _____

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED

DIVISION ADMINISTRATOR DATE

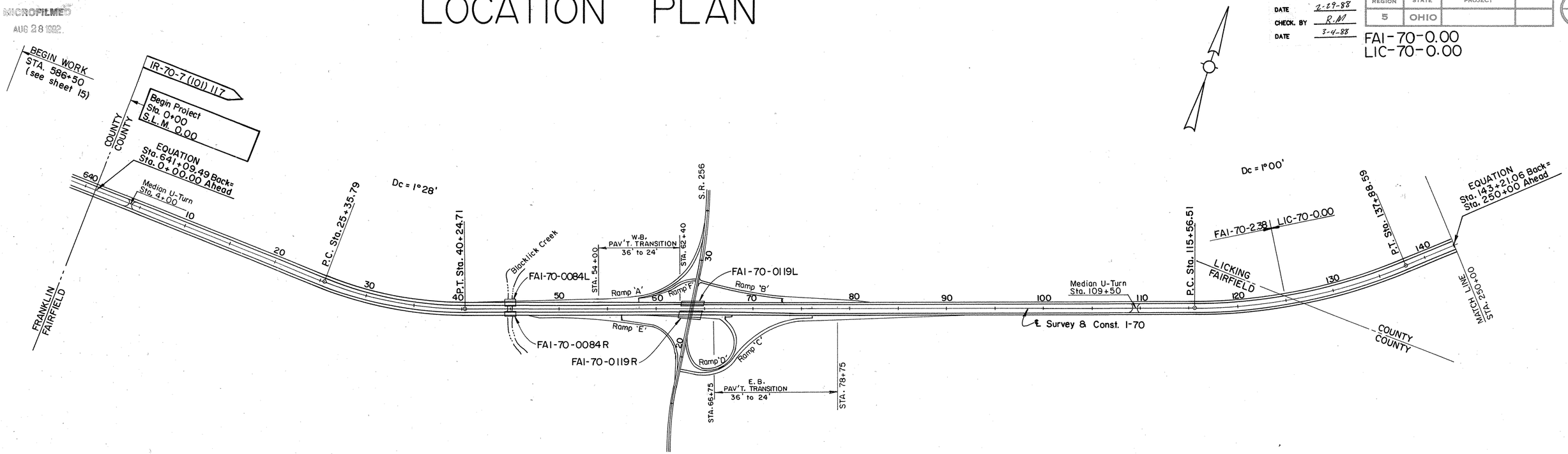
LOCATION PLAN

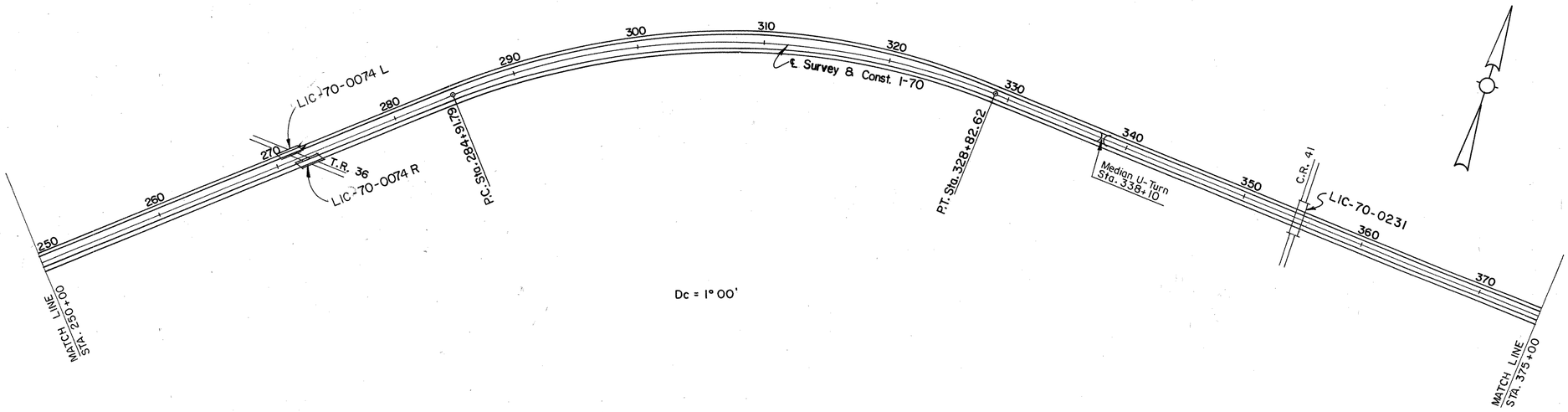
CALC. BY	D.M.
DATE	2-29-88
CHECK. BY	R.M.
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

2
126

FAI-70-0.00
LIC-70-0.00





Revised 4-6-88

LOCATION PLAN

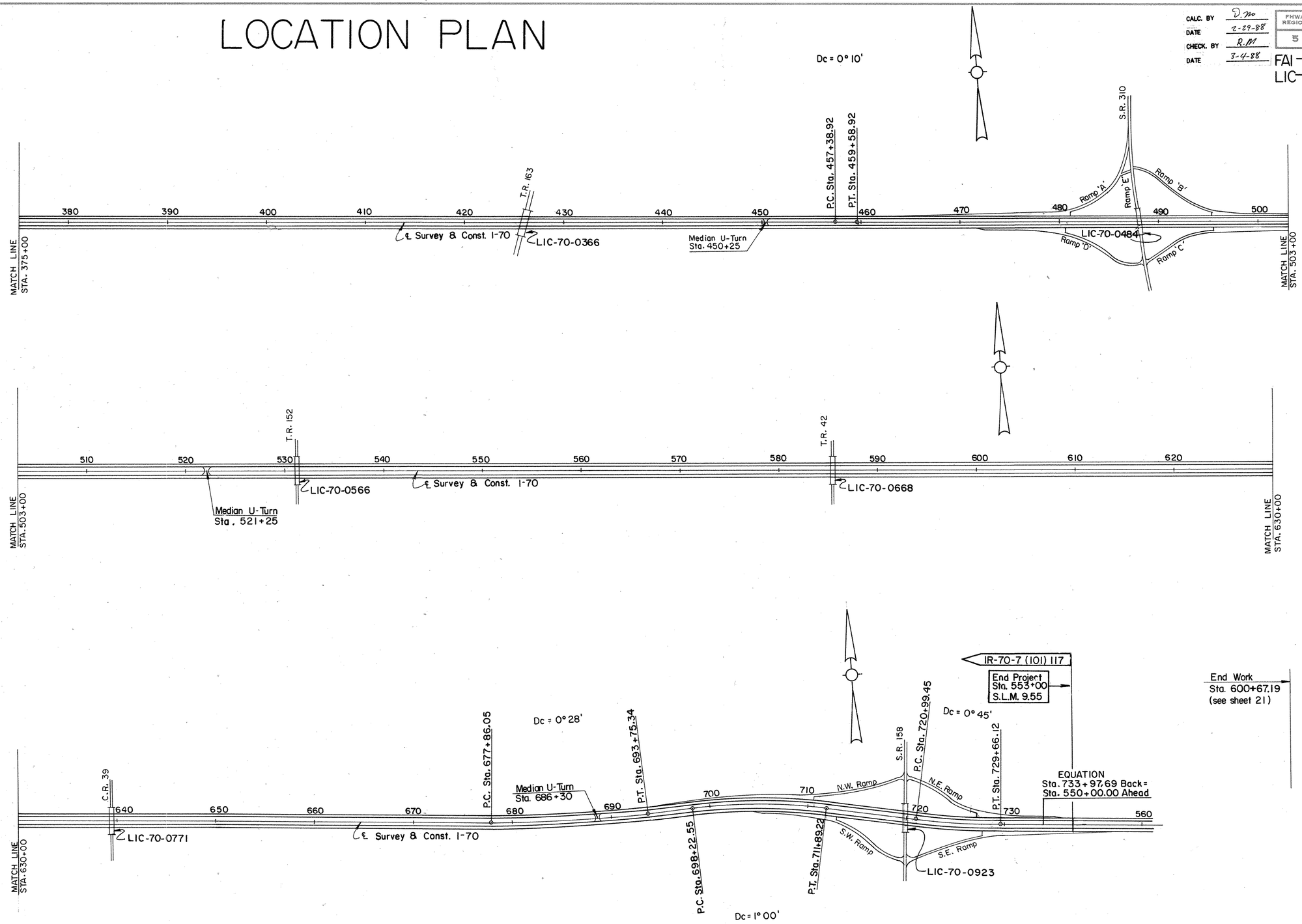
LOCATION PLAN

CALC. BY	D. Pro
DATE	2-29-88
CHECK. BY	R.M.
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

3
126

FAI-70-0.00
LIC-70-0.00

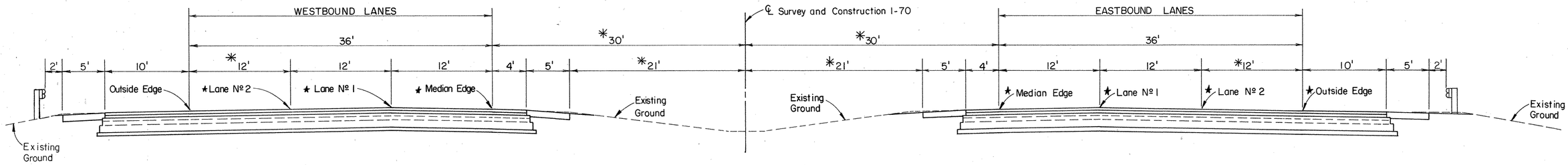


TYPICAL SECTIONS (Mainline)
TYPE 846

CALC. BY D.M
DATE 2-29-88
CHECK. BY R.M
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00



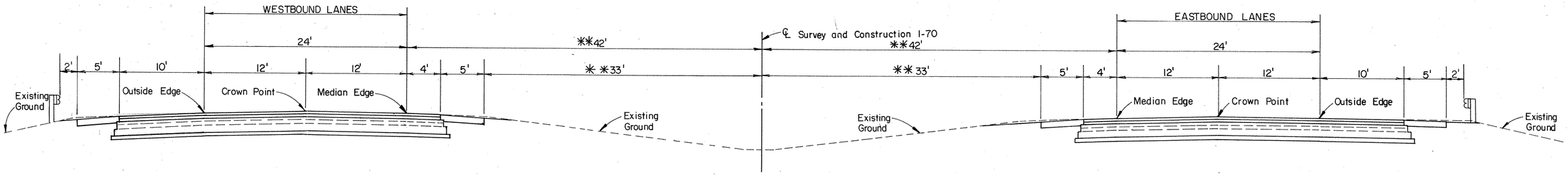
MAIN LINE SECTION 60' MEDIAN
Station 0+00 to Station 62+40 Lt.& 78+75 Rt.

Deduct 164 L.F. for Bridge Nº FAI-70-0084 Rt. & Lt.
Deduct 233.1 L.F. for Bridge Nº FAI-70-0119 Rt.

For Pavement Details See Sheets 5
For Bridge Details See Sheets 106-118

★ Pavement Elevations as shown on Sheets 21-47

✳ Median Transition from 60' to 84'
Pavement Transition from 12' to 0'
Station 54+00 to Sta. 62+40 Lt.
Station 66+75 to Sta. 78+75 Rt.



MAIN LINE SECTION 84' MEDIAN

Station 62+40 Lt. & Station 78+75 Rt. to Station 143+21.06 Back =
Station 250+00 Ahead to Station 733+97.69 Back =
Station 550+00 Ahead to Station 553+00

Deduct 229.1 L.F. for Bridge Nº FAI-70-0119 Lt.
Deduct 217.52 L.F. for Bridge Nº LIC-70-0074 Lt.
Deduct 207.52 L.F. for Bridge Nº LIC-70-0074 Rt.

Median Transition from 84' to 44'
Station 698+22.55 to Station 711+89.22
Median Width 44' from Station 711+89.22 to Station 720+99.45
** Median Transition from 44' to 50'
Station 720+99.45 to Station 729+66.12
Median Width 50' from Station 729+66.12 to Station 733+97.69 Back
Station 550+00 Ahead to Station 553+00

TYPICAL SECTIONS

TYPE 846

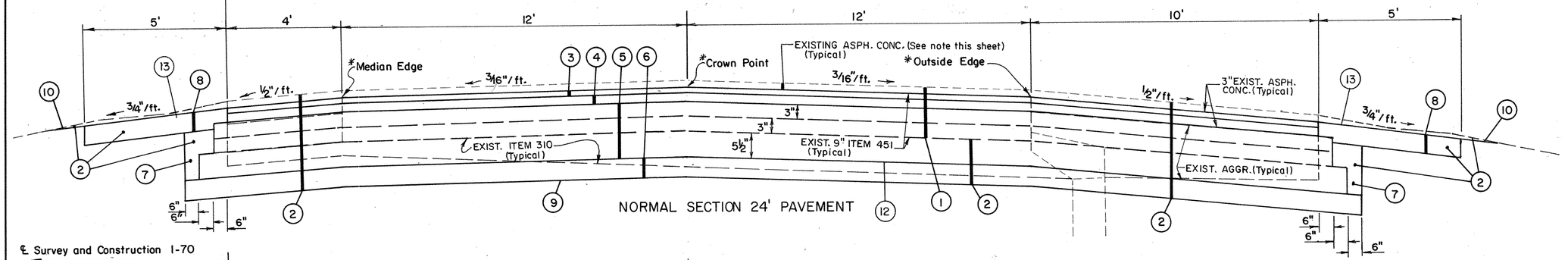
CALC. BY	D.M.
DATE	2-29-88
CHECK. BY	R.M.
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

5/126

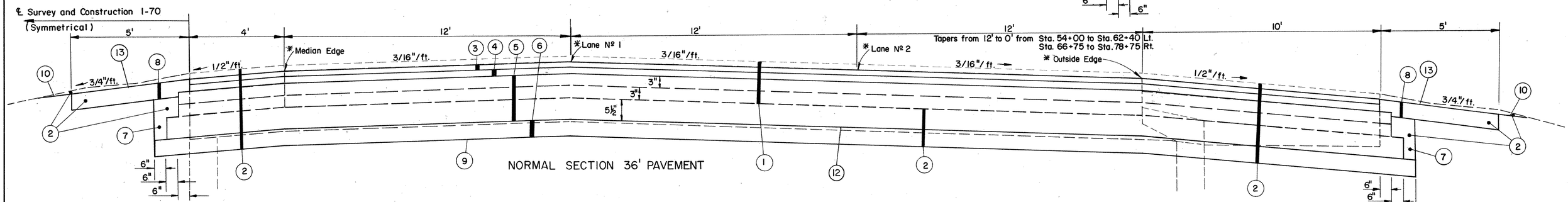
FAI-70-0.00
LIC-70-0.00

℄ Survey and Construction I-70
(Symmetrical)



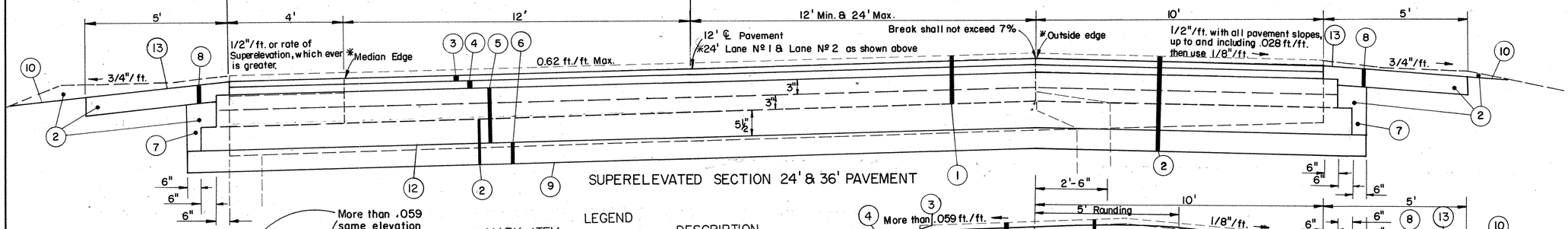
NORMAL SECTION 24' PAVEMENT

℄ Survey and Construction I-70
(Symmetrical)

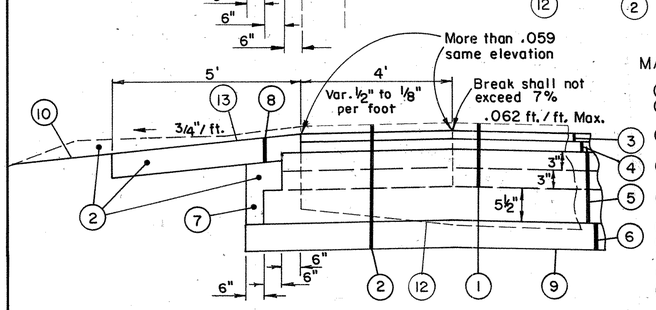


NORMAL SECTION 36' PAVEMENT

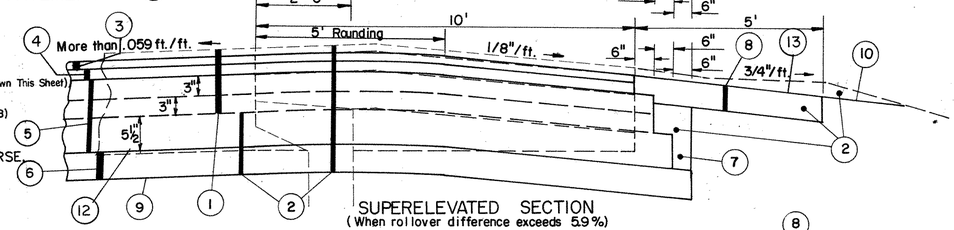
℄ Survey and Construction I-70
(Symmetrical)



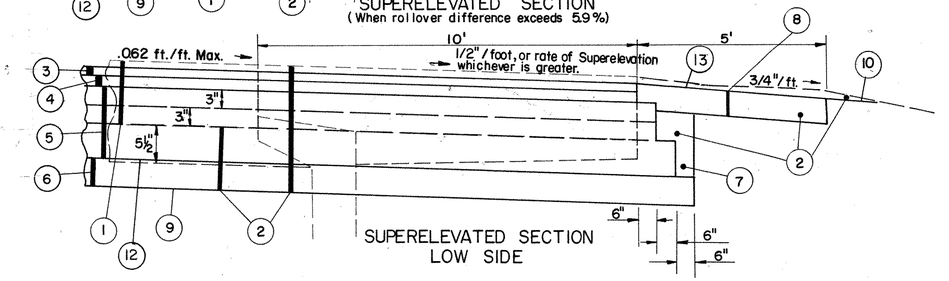
SUPERELEVATED SECTION 24' & 36' PAVEMENT



SUPERELEVATED SECTION
HIGH SIDE



SUPERELEVATED SECTION
(When rollover difference exceeds 5.9%)



SUPERELEVATED SECTION
LOW SIDE

MARK	ITEM	LEGEND DESCRIPTION
①	202	PAVEMENT REMOVED (9" Item 451 & Asphalt Concrete As Shown This Sheet)
②	203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (See General Notes Sheet 28)
③	846	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
④	846	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
⑤	301	11 1/2" BITUMINOUS AGGREGATE BASE; AC-20 (PLACED IN THREE COURSES AS SHOWN)
⑥	304	4" AGGREGATE BASE, AS PER PLAN
⑦	203	EMBANKMENT
⑧	617	4" COMPACTED AGGREGATE, TYPE A
⑨	203	SUBGRADE COMPACTION
⑩	659	SEEDING AND MULCHING
⑪	605	6" PIPE UNDERDRAIN, AS PER PLAN (FOR DETAILS SEE SHEET 7).
⑫	408	BITUMINOUS PRIME COAT APPLIED AT THE RATE OF 0.4 GAL/SQ.YD.
⑬	617	WATER (SEE GENERAL NOTE SHEET 28)

EXISTING ASPHALT

Existing Asphalt Concrete is 2½" thick except for the following stations:
W.B. 5" existing Asphalt Concrete from Sta. 104+00 to Sta. 143+21.06
E.B. 3 3/4" existing Asphalt Concrete from Sta. 104+00 to Sta. 143+21.06 (Back). Sta. 250+00 (Ahead) to Sta. 335+00.

* Pavement Elevations shown on sheets 21-47

SCHEDULE OF STATIONING
STATION TO STATION

NORMAL 36'

0+00 TO 23+50
42+10 TO 44+18
45+82 LT. TO 54+00 LT.
45+82 RT. TO 62+57.70 RT.
64+90.80 RT. TO 66+75 RT.
54+00 LT. TO 62+40 LT. } TAPERS FROM 36' TO 24'
66+75RT. TO 78+75 RT. } SEE NOTE ABOVE

SUPER 36'

23+50 TO 42+10, Curve Left

NORMAL 24'

62+40 LT. TO 62+56.11 LT.
64+85.21 LT. TO 78+75 LT.
78+75 TO 114+60
138+90 TO 143+21.06 BACK=
250+00 AHEAD
250+00 TO 270+84.07 LT.
270+89.07 RT.
273+01.59 LT. TO 283+90
272+96.59 RT.
329+80 LT. TO 695+75 LT.
329+80 RT. TO 697+25 RT.
712+75 TO 720+25 LT.
714+50 RT. TO 720+25 RT.

SUPER 24'

114+60 TO 138+90, Curve Left
283+90 TO 329+80, Curve Right
695+75 LT. TO 712+75 LT., Curve Right
697+25 RT. TO 714+50 RT., Curve Right
720+25 TO 733+97.69 BACK, Curve Left
550+00 AHEAD TO 553+00, Curve Left

TYPICAL SECTIONS

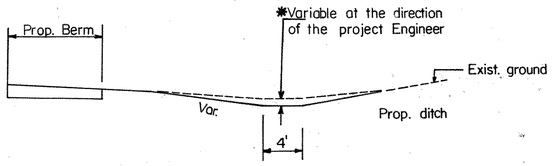
TYPE 846

FHWA REGION	STATE	PROJECT	
5	OHIO		

6
126

FAI-70-0.00
LIC-70-0.00

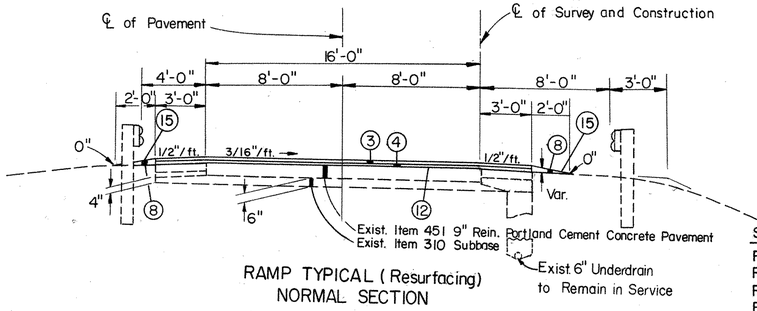
CALC. BY D.M
DATE 2-29-88
CHECK. BY R.M.
DATE 3-4-88



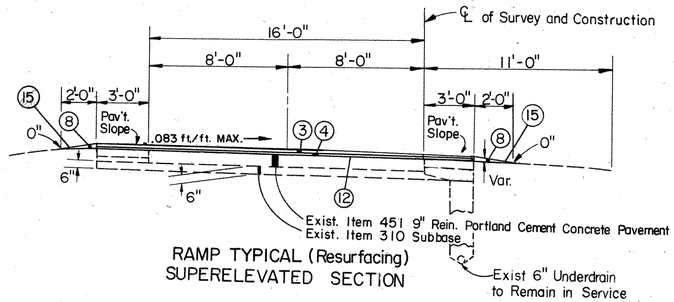
* An estimated depth of 2" should be used for estimating purposes.

CROSS-SECTION FOR LINEAR GRADING OF EXISTING DITCHES

A CONTINGENCY QUANTITY OF 0.5 MILES OF ITEM 203 LINEAR GRADING HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS SHOWN ABOVE. THE DEPTH AND LOCATION OF THE EXISTING DITCHES REQUIRING EXCAVATION SHALL BE DETERMINED BY THE PROJECT ENGINEER, AT THE TIME OF CONST. A CONTINGENCY QUANTITY OF 18,000 SQ. YDS. OF ITEM 659 SEEDING & MULCHING HAS BEEN CARRIED TO SHEET 27 TO SEED THE AREAS DESCRIBED ABOVE.



RAMP TYPICAL (Resurfacing)
NORMAL SECTION



RAMP TYPICAL (Resurfacing)
SUPERELEVATED SECTION

STATION TO STATION

S.R. 256:

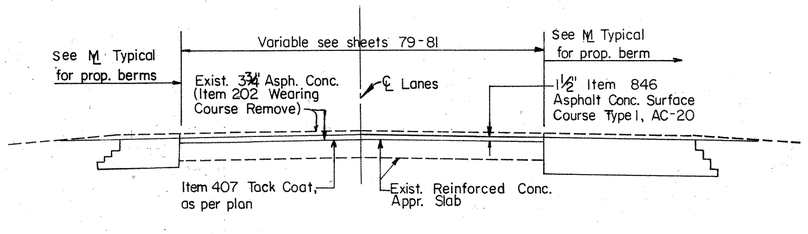
RAMP "A"	59+25 to 65+83
RAMP "B"	64+41 to 72+71.21
RAMP "C"	60+52.33 to 75+25
RAMP "D"	68+00 to 82+00.18
RAMP "E"	56+00 to 64+64.06
RAMP "F"	59+25 to 64+33

S.R. 310:

RAMP "A"	1+86 to 10+00
RAMP "B"	6+25 to 14+49.33
RAMP "C"	0+28.10 to 6+75
RAMP "D"	5+78.07 to 14+37.13
RAMP "E"	0+27.31 to 1+45

S.R. 158:

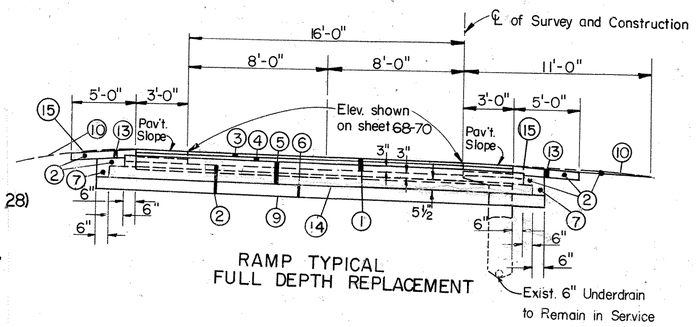
SW	RAMP	713+28.3 to 721+29
SE	RAMP	719+41.6 to 727+00
NW	RAMP	711+50 to 720+13.73
NE	RAMP	718+89.1 to 726+94



TYPICAL CROSS SECTION APPROACH SLAB

LEGEND

MARK	ITEM	DESCRIPTION
①	202	PAVEMENT REMOVED (9" Item 451 & 2½" asph. conc.)
②	203	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION (see general note sheet 28)
③	846	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 AC-20
④	846	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 AC-20
⑤	301	11 1/2" BITUMINOUS AGGREGATE BASE; AC-20 (PLACED IN THREE COURSES AS SHOWN)
⑥	304	4" AGGREGATE BASE, AS PER PLAN
⑦	203	EMBANKMENT
⑧	617	VAR. COMPACTED AGGREGATE, TYPE A
⑨	203	SUBGRADE COMPACTION
⑩	659	SEEDING AND MULCHING
⑪	605	6" PIPE UNDERDRAIN AS PER PLAN (FOR DETAILS SEE SHEET 7).
⑫	407	TACK COAT, AS PER PLAN
⑬	617	4" COMPACTED AGGREGATE, TYPE A
⑭	408	BITUMINOUS PRIME COAT APPLIED AT RATE OF 0.40 GAL./SQ.YD.
⑮	617	WATER (SEE GENERAL NOTE SHEET 28)



RAMP TYPICAL
FULL DEPTH REPLACEMENT

S.R. 256:

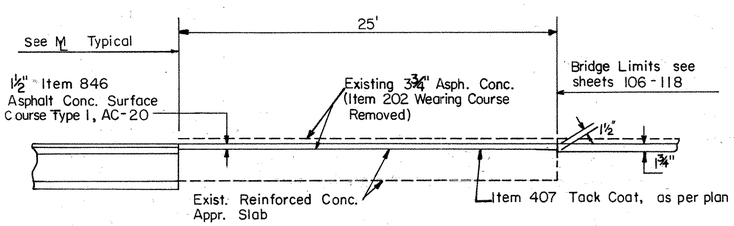
RAMP "A"	58+30 to 59+25
RAMP "B"	72+71.21 to 73+96.21
RAMP "C"	75+25 to 76+05
RAMP "D"	66+74.16 to 68+00
RAMP "E"	54+74.06 to 56+00
RAMP "F"	58+85.37 to 59+25

S.R. 310:

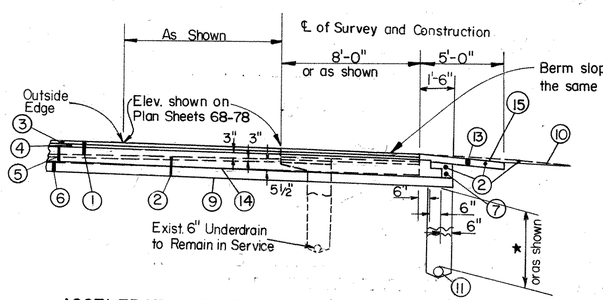
RAMP "A"	10+00 to 10+88
RAMP "B"	4+53.07 to 6+25
RAMP "C"	6+75 to 7+40
RAMP "D"	4+53.07 to 5+78.07

S.R. 158:

SW	RAMP	712+03.3 to 713+28.3
SE	RAMP	727+00 to 727+75
NW	RAMP	710+62 to 711+50
NE	RAMP	726+94 to 728+19



TYPICAL LONGITUDINAL SECTION APPROACH SLAB



ACCELERATION & DECELERATION LANE TYPICAL
FULL DEPTH REPLACEMENT

S.R. 256:

RAMP "A"	41+62 to 58+30
RAMP "B"	73+96.21 to 81+95.27
RAMP "C"	76+05 to 92+75
RAMP "D"	57+29.44 to 66+74.16
RAMP "E"	46+75 to 54+74.06

S.R. 310

RAMP "A"	10+88 to 463+69.44, 66' Lt.
RAMP "B"	504+20, 66' Lt. to 4+53.07
RAMP "C"	7+40 to 512+00
RAMP "D"	471+54.73, to 4+53.07

S.R. 158:

SW	RAMP	704+05.5 to 712+03.3
SE	RAMP	727+75 to 553+00
NW	RAMP	696+00 to 710+62
NE	RAMP	728+19 to 552+23

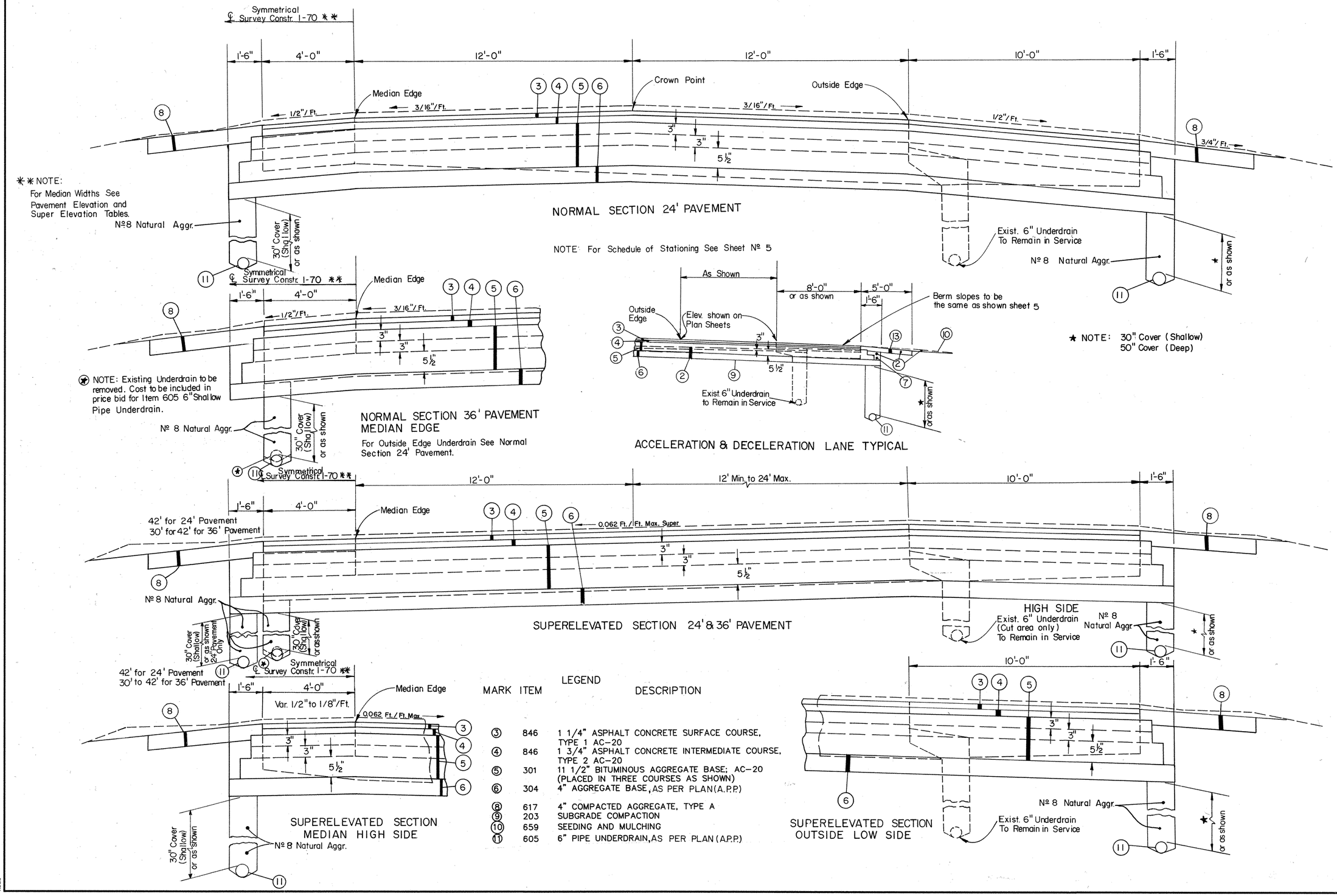
605 UNDERDRAIN TYPICALS

FHWA REGION	STATE	PROJECT	
5	OHIO		

7
126

FAI-70-0.00
LIC-70-0.00

CALC. BY RGL
DATE 3/3/88
CHECK. BY [illegible]
DATE 3-4-88



MARK	ITEM	DESCRIPTION
		LEGEND
③	846	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1 AC-20
④	846	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 AC-20
⑤	301	11 1/2" BITUMINOUS AGGREGATE BASE; AC-20 (PLACED IN THREE COURSES AS SHOWN)
⑥	304	4" AGGREGATE BASE, AS PER PLAN (A.P.P.)
⑧	617	4" COMPACTED AGGREGATE, TYPE A
⑨	203	SUBGRADE COMPACTION
⑩	659	SEEDING AND MULCHING
⑪	605	6" PIPE UNDERDRAIN, AS PER PLAN (A.P.P.)

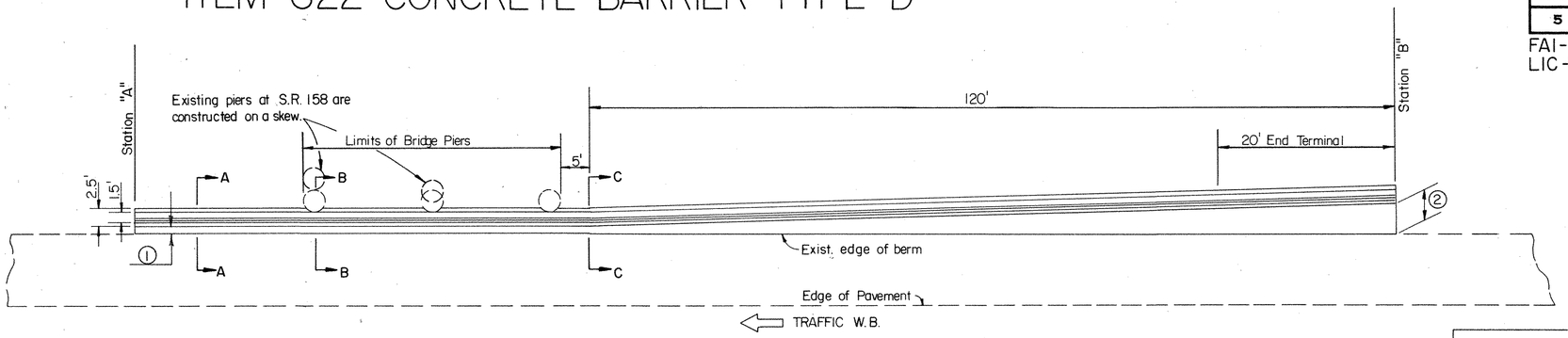
ITEM 622 CONCRETE BARRIER TYPE D

FHWA REGION	STATE	PROJECT	
5	OHIO		

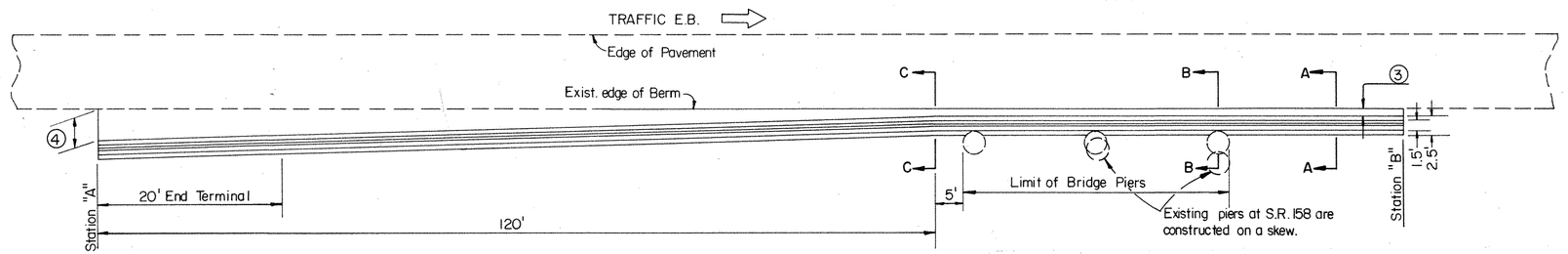
FAI-70-0.00
LIC-70-0.00

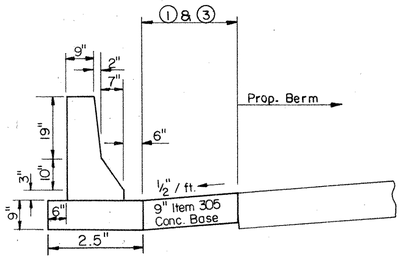
7-A
126

CALC. BY D.M.
DATE 2-29-88
CHECK. BY R.M.
DATE 3-4-88

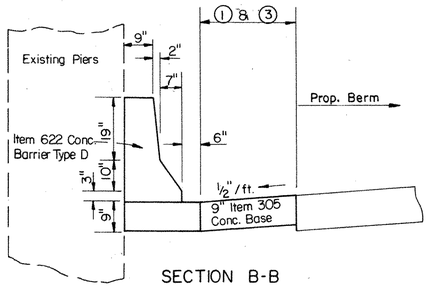


		WESTBOUND						EASTBOUND	
		①	②	③	④	STATION A	STATION B	STATION A	STATION B
LIC-70-0231	C.R. 41	2.42'	10.73'	2.42'	2.42'	354+14.7	355+94.7	354+27.4	355+04.4
LIC-70-0366	T.R. 163	2.5'	10.81'	2.5'	10.81'	425+76.7	427+56.7	424+35.3	426+15.3
LIC-70-0484	S.R. 310	2.0'	10.31'	2.0'	10.31'	487+32.1	489+52.1	486+63.9	488+83.9
LIC-70-0566	T.R. 152	2.0'	10.31'	2.0'	10.31'	530+81.0	532+61.0	529+84.3	531+64.3
LIC-70-0668	T.R. 42	2.0'	10.31'	2.0'	10.31'	585+05.1	586+85.1	584+08.1	585+88.1
LIC-70-0771	C.R. 39	2.0'	10.31'	2.0'	10.31'	639+01.9	640+81.9	638+04.9	639+84.9
LIC-70-0923	S.R. 158	1.0'	9.31'	0.33'	8.64'	719+50.1	721+30.1	718+60.3	720+40.3

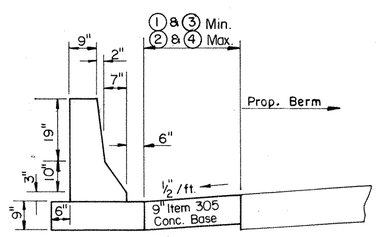




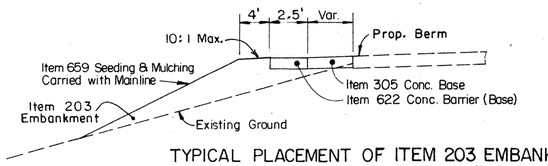
SECTION A-A



SECTION B-B



SECTION C-C



TYPICAL PLACEMENT OF ITEM 203 EMBANKMENT FOR ITEM 622 CONCRETE BARRIER TYPE D

UNDERPASS CALCULATIONS (QUANTITIES CARRIED TO THE GENERAL SUMMARY)

ITEM 622 CONCRETE BARRIER TYPE D:

	W.B.	E.B.
C.R. 41	180 L.F.	77 L.F.
T.R. 163	180 L.F.	180 L.F.
S.R. 310	220 L.F.	220 L.F.
T.R. 152	180 L.F.	180 L.F.
T.R. 42	180 L.F.	180 L.F.
C.R. 39	180 L.F.	180 L.F.
S.R. 158	180 L.F.	180 L.F.
TOTAL	1300 L.F. + 1197 L.F.	= 2497 L.F.

ITEM 305 CONCRETE BASE 9":

C.R. 41 180'+ 77'=257'x2.42' = 621.94 S.F. + 120'x4.2' AVE = 1,125.94 S.F. ÷ 9 = 125.1 S.Y.
T.R. 163 180'x 2.5'= 450 S.F.+ 120'x4.2' AVE = 954 S.F. ÷ 9 = 106.0 S.Y.x2 = 212.0 S.Y.
S.R. 310 220'x 2'= 440 S.F. + 120'x 4.2'AVE = 944 S.F. ÷ 9 = 104.9 S.Y.x2 = 209.8 S.Y.
T.R. 152 180'x 2'= 360 S.F. + 120'x4.2'AVE = 864 S.F. ÷ 9 = 96.0 S.Y.x2 = 192.0 S.Y.
T.R. 42 180'x 2'= 360 S.F. + 120'x4.2'AVE = 864 S.F. ÷ 9 = 96.0 S.Y.x2 = 192.0 S.Y.
C.R. 39 180'x 2'= 360 S.F. + 120'x4.2'AVE = 864 S.F. ÷ 9 = 96.0 S.Y.x2 = 192.0 S.Y.
S.R. 158 (180'x1') + (180'x0.33') = 239.4 S.F. + (120'x4.2' + 120'x4.2') = 1,247.4 S.F. ÷ 9 = 138.6 S.Y.
TOTAL 1,261.5 S.Y.

ITEM 203 EXCAVATION, NOT INCLUDING EMBANKMENT CONSTRUCTION:

C.R. 41 3.7 S.F.x(77' + 60') = 506.9 S.F. ÷ 27 = 19 C.Y.
T.R. 163 3.8 S.F.x60' ÷ 27 = 8.4 C.Y. x 2 = 17 C.Y.
S.R. 310 3.4 S.F.x60' ÷ 27 = 7.6 C.Y. x 2 = 16 C.Y.
T.R. 152 3.4 S.F.x60' ÷ 27 = 7.6 C.Y. x 2 = 16 C.Y.
T.R. 42 3.4 S.F.x60' ÷ 27 = 7.6 C.Y. x 2 = 16 C.Y.
C.R. 39 3.4 S.F.x60' ÷ 27 = 7.6 C.Y. x 2 = 16 C.Y.
S.R. 158 2.6 S.F.x60' + 2.1 S.F.x60'=282C.F. ÷ 27 = 11 C.Y.
TOTAL 111 C.Y.

ITEM 203 EMBANKMENT:

C.R. 41 77'+60'x 8 S.F. + 120'x7.5 S.F. = 1996 S.F. ÷ 27 = 74 C.Y.
T.R. 163 180'x8 S.F. + 120'x7.5 S.F. = 2340 S.F. ÷ 27x2 = 173 C.Y.
S.R. 310 220'x7 S.F. + 120'x7.5 S.F. = 2440 S.F. ÷ 27x2 = 181 C.Y.
T.R. 152 180'x7 S.F. + 120'x7.5 S.F. = 2160 S.F. ÷ 27x2 = 160 C.Y.
T.R. 42 180'x7 S.F. + 120'x7.5 S.F. = 2160 S.F. ÷ 27x2 = 160 C.Y.
C.R. 39 180'x7 S.F. + 120'x7.5 S.F. = 2160 S.F. ÷ 27x2 = 160 C.Y.
S.R. 158 (180'x3 S.F.)+(180'x1 S.F.)+(120'x2x7.5 S.F.)=2520 C.F.÷27= 94 C.Y.
TOTAL 1,002 C.Y.

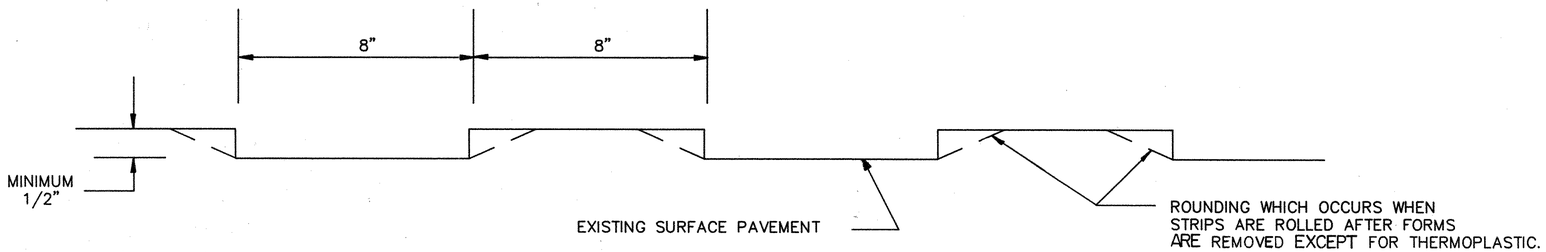
ITEM SPECIAL RUMBLE STRIPS

CALC. BY D.M DATE 1-29-88
CHKD. BY R.M DATE 3-4-88

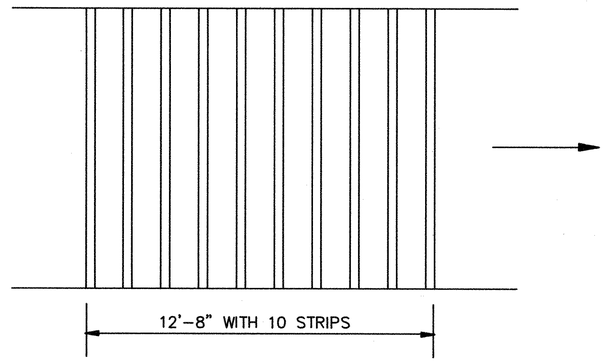
FHWA REGION	STATE	PROJECT	
5	OHIO		

7-B / 126

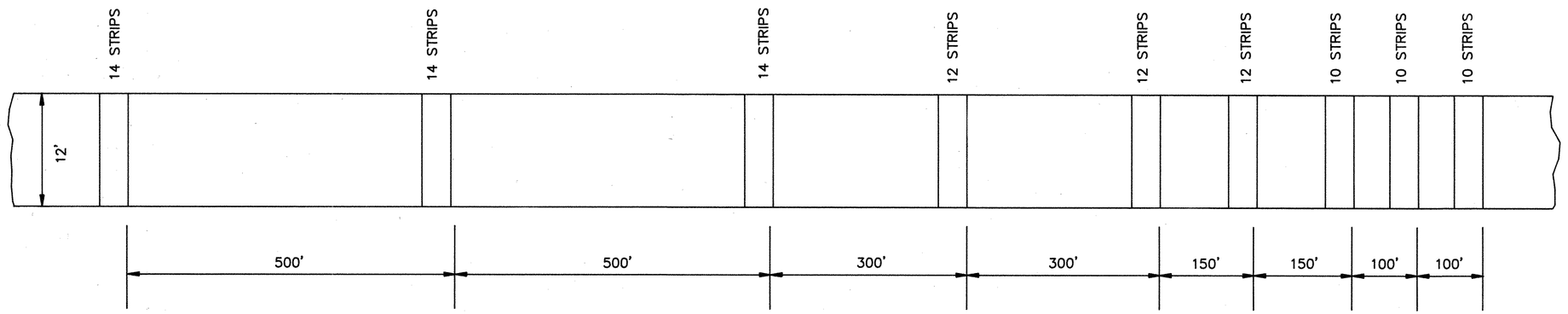
FAI-70-0.00
LIC-70-0.00



TYPICAL STRIP DETAIL



TYPICAL RUMBLE STRIP PAD



TYPICAL PLACEMENT OF RUMBLE STRIPS

ITEM SPECIAL RUMBLE STRIPS

THIS ITEM SHALL CONSIST OF CONSTRUCTING RUMBLE STRIPS TO THE DIMENSIONS AND DETAILS SHOWN ON THIS SHEET AND THE DISPOSAL WHEN NO LONGER NEEDED.

THE METHOD OF MEASUREMENT WILL BE LINEAR FEET IN PLACE AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE.

ITEM SPECIAL RUMBLE STRIPS 2592 L.F. E.B.
3888 L.F. W.B.
TOTAL 6480 LIN.FT.

GENERAL NOTES

1. THE RUMBLE STRIP SHALL CONSIST OF PARRALLEL RAISED STRIPS 16 INCHES CENTER TO CENTER.

2. EACH STRIP SHALL HAVE A HEIGHT OF APPROXIMATELY 1/4 INCH AND A WIDTH OF 8 INCHES. CONSTRUCTION METHODS SHALL BE AS FOLLOWS:

   A: ASPHALTIC CONCRETE STRIPS – . SAND ASPHALT SHALL BE PLACED IN 1/2 INCH PLYWOOD FORMS AND THEN ROLLED DOWN TO 1/4 INCH AFTER REMOVING THE FORMS.

   B: EPOXY STRIPS – MORTAR IS PLACED IN THE FORM, TROWELED, AND THEN LEVELED WITH A ROLLER.

   C: THERMOPLASTIC STRIPS – LOCATIONS SHALL BE LAID OUT ON PAVEMENT USING REFERENCE POINTS AND/OR PREMARKING LINES. THERMOPLASTIC MATERIAL SHALL BE APPLIED BY THE EXTRUSION PROCESS USING A MANUAL APPLICATOR.

ROADWAY SURFACES SHALL BE ADEQUATELY PREPARED AND/OR PRIMED, AS REQUIRED, BEFORE INSTALLATION OF STRIPS. A CONSTRUCTION METHOD OTHER THAN THE ABOVE MUST BE APPROVED BY THE ENGINEER OF TRAFFIC PRIOR TO USE.

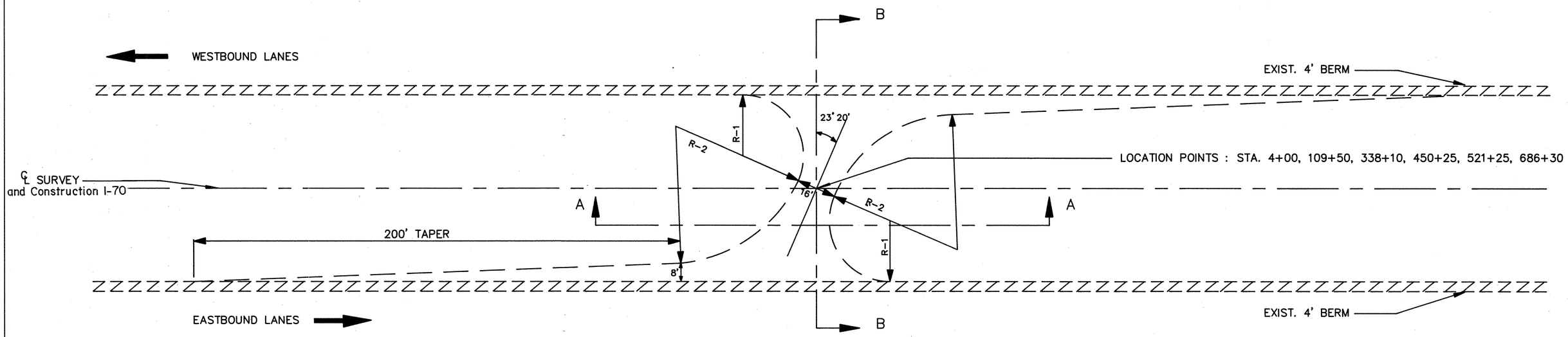
U–TURN MEDIAN OPENINGS

CALC. BY	DATE
DM	2-29-88
CHKD. BY	DATE
RM	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

8
126

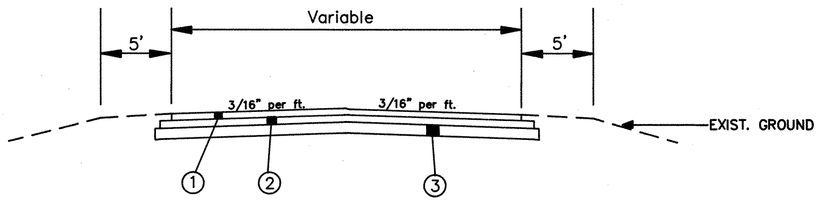
FAI–70–0.00
LIC–70–0.00



TYPICAL U – TURN MEDIAN OPENING

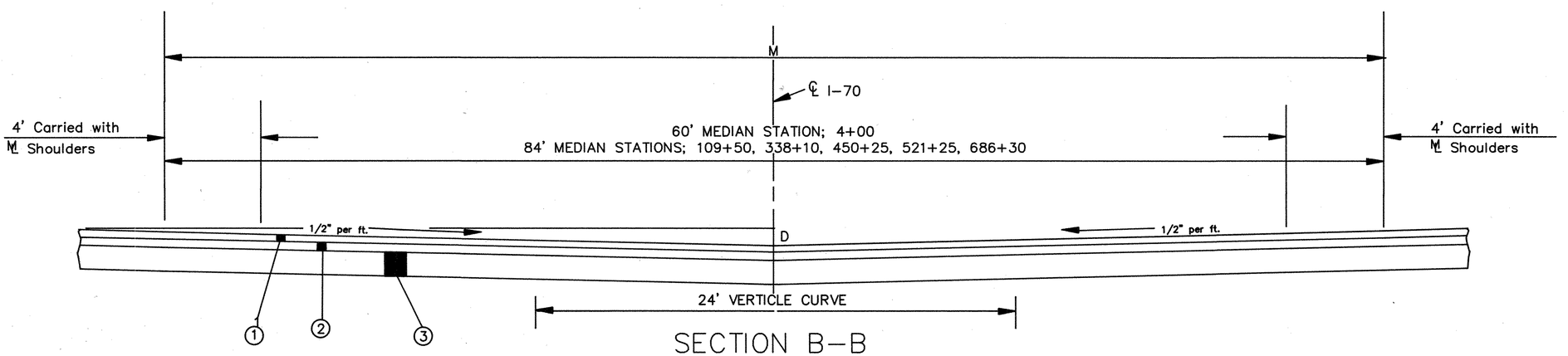
LEGEND

MARK	ITEM	DESCRIPTION
①	846	1 1/4" Asphalt Concrete Surface Course, Type 1, AC–20
②	846	1 3/4" Asphalt Concrete Intermediate Course, Type 2, AC–20
③	301	6" Bituminous Aggregate Base; AC–20



SECTION A–A

DIMENSIONS APPLICABLE TO VARYING MEDIAN WIDTHS				
M (ft)	D (in)	R–1 (ft)	R–2 (ft)	AREA (yd²)
84	18	25.0	55.0	510.2
60	12	16.2	35.6	368.9
50	9.5	12.5	27.5	319.4
40	7	8.8	19.4	275.4



SECTION B–B

GUARDRAIL DETAILS

CALC. BY DM DATE 2-29-88
CHKD. BY RM DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

9/126

FAI-70-0.00
LIC-70-0.00

GUARDRAIL FLARES:
EXISTING OUTSIDE GUARDRAIL SHALL BE REMOVED AND NEW GUARDRAIL BUILT THE SAME DISTANCE FROM THE EDGE OF PAVEMENT TO THE FACE OF THE GUARDRAIL AS EXISTING AND IN ACCORDANCE WITH STANDARD DRAWINGS GR-4 and GR-5.

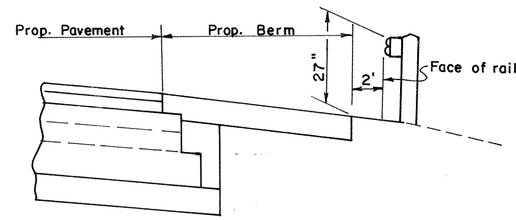
ITEM 606 ANCHOR ASSEMBLY, STANDARD TYPE A:
CARE SHALL BE EXERCISED WHEN REMOVING EXISTING GUARDRAIL FROM EXISTING ANCHOR ASSEMBLIES. ANY ANCHOR ASSEMBLIES CONSIDERED SALVAGEABLE BY THE PROJECT ENGINEER MAY BE REUSED.

LOCATION OF GUARDRAIL:
THE LOCATION OF GUARDRAIL RUNS ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISIFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

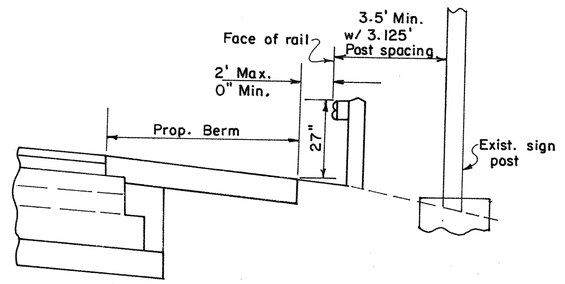
TAPER TO EXISTING BRIDGES:
PROPOSED GUARDRAIL THAT HAS TO BE ADJUSTED TO MEET AN EXISTING BRIDGE SHALL BE TAPERED AT THE RATE OF 25 TO 1 (25:1)

BRIDGE APPROACH GUARDRAIL:
BRIDGE APPROACH GUARDRAIL STATION AS SHOWN SHALL BE ADJUSTED BY THE PROJECT ENGINEER TO CONFORM TO STD. DRWG. GR-3, TYPE A.

MEDIAN GUARDRAIL:
ANY GRADING NECESSARY TO CONSTRUCT THE MEDIAN GUARDRAIL TO CONFORM TO ST'D. DRWG. GR-6 & GR-6A, SHALL BE DONE AT THE DIRECTION OF THE PROJECT ENGINEER, AND SHALL BE INCIDENTAL TO ITEM 606 GUARDRAIL TYPE 5.



TYPICAL PLACEMENT OF GUARDRAIL



TYPICAL PLACEMENT OF GUARDRAIL AT EXISTING SIGN SUPPORTS

TABLE (A) * CITY, STATE & FEDERAL FUNDS

MARK	EXISTING STATION TO STATION (EASTBOUND) FROM	TO	202 GUARDRAIL REMOVED LIN.FT.	606 GUARDRAIL TYPE 5 LIN.FT.	606 ANCHOR ASSEM. STANDARD TYPE A EACH Single	Barr.	606 BRIDGE TERMINAL ASSEM. EACH B	A	606 GUARDRAIL BARRIER DESIGN TYPE 5 LIN.FT.	606 ANCHOR ASSEM. STANDARD TYPE T EACH	SEE STANDARD DRAWING	606 GUARDRAIL POSTS INSTALLED EACH	FROM SHEET NO.	PROPOSED STATION TO STATION (Same as existing except as noted) FROM	TO
1-G	* 5+70	7+45	175.0	137.5	1					1	GR-6A, GR-4, GR-4A	4	50		
2-G	42+16.8	44+44.8	228.0	200.0	1			1			GR-3, GR-4, GR-5, GR-6A	4	50	42+19.8	44+44.8
6-G	45+56.4	46+34.4	78.0	87.5				1		1	GR-3, GR-4A		50&51	45+46.9	46+46.9
9-G	50+62.5	59+25	862.5	825.0	1					1	GR-5, GR-6A GR-4, GR-4A	4	51		
10-G	60+87.2	62+64.7	177.5	150.0	1			1			GR-3, GR-4		51	60+87.2	62+62.2
11-G	64+31.5	65+71.5	140.0	150.0				1		1	GR-6A, GR-3, GR-4A	4	51	64+33.5	65+83.5
12-G	84+35.5	95+10.5	1075.0	1037.5	1					1	GR-4, GR-4A, GR-5		51&52		
22-G	269+44.5	271+88	243.5	225.0	1			1			GR-3, GR-4		53	269+38	271+88
23-G	273+51	275+94.5	243.5	225.0				1		1	GR-3, GR-4A		53	273+51.5	275+88.5
26-G	348+74.5	355+37	662.5	537.5	1			1			GR-3, GR-4		55	348+64.94	354+27.44
29-G	424+05.5	426+43	237.5										57		
33-G	6+92 Ramp D	16+71 (S.R.310)	979.0	987.5	1					1	GR-4, GR-4A		59		
34-G	486+32	489+07 S.R. 310	275.0										58		
35-G	9+30 Ramp B	35+20 (RAMP-B)	2600.0	2562.5	1					1	GR-4, GR-4A		60		
36-G	S.R. 310 0+23 Ramp A	10+50 (RAMP-A)	1025.0	987.5	1					1	GR 4, GR-4A		59		
37-G	529+54.5	531+92	237.5										61		
40-G	583+76.5	586+14	237.5										62		
45-G	637+85	640+10	225.0										63		
48-G	659+70	669+89	1025	987.5	1					1	GR-4, GR-4A		64		
49-G	718+28.5	720+66	237.5										65		
#	SUB-TOT. (CITY, STATE & FEDERAL)		175.0	137.5	1					1		4			
#	SUB-TOT. (STATE & FEDERAL)		10789.5	8962.5	10			7		9		12			

#CARRIED TO SHEET 10

TABLE (B)

MARK	EXISTING STATION TO STATION (WESTBOUND) FROM	TO	202 GUARDRAIL REMOVED LIN.FT.	606 GUARDRAIL TYPE 5 LIN.FT.	606 ANCHOR ASSEM. STANDARD TYPE A EACH Single	Barr.	606 BRIDGE TERMINAL ASSEM. EACH B	A	606 GUARDRAIL BARRIER DESIGN TYPE 5 LIN.FT.	606 ANCHOR ASSEM. STANDARD TYPE T EACH	SEE STANDARD DRAWING	606 GUARDRAIL POSTS INSTALLED EACH	FROM SHEET NO.	PROPOSED STATION TO STATION (Same as existing except as noted) FROM	TO
3-G	* 6+49	8+24	175.0	137.5	1					1	GR-6A, GR-4, GR-4A	4	50		
4-G	42+43.6	44+46.6	203.0	187.5				1		1	GR-3, GR-4A		50	42+59.1	44+59.1
5-G	45+56.8	47+84.8	228.0	212.5	1			1			GR-5, GR-3, GR-4		50&51	45+56.3	47+94.3
13-G	61+21.5	62+95	173.5	150.0				1		1	GR-3, GR-4A		51	61+22.5	62+84.5
14-G	64+64.2	67+16.7	252.5	237.5	1			1			GR-5, GR-3, GR-4		51	64+66.2	67+28.7
19-G	91+26.2	107+76.2	1650.0	1612.5	1					1	GR-5, GR-4, GR-4A		52		
20-G	266+00	270+31	431.0	412.5				1		1	GR-3, GR-4A		53	265+93.5	270+18.5
21-G	271+87	274+18	231.0	225.0	1			1			GR-4, GR-3		53	271+80.5	274+30.5
27-G	351+01.5	356+39	537.5	312.5				1		1	GR-3, GR-4A		55	350+89.68	354+14.68
30-G	425+40	427+75	237.5										57		
52-G	487+10	489+85	275										58		
38-G	530+51.5	533+39	287.5										61		
42-G	584+81	587+43.5	262.5										62		
43-G	590+75	596+25	550	512.5	1					1	GR-4, GR-4A		62		
44-G	638+75	641+12.5	237.5										63		
47-G	661+77	671+72	1000.0	962.5	1					1	GR-4, GR-4A		64		
50-G	719+31	721+68.5	237.5										65		
#	SUB-TOTALS (CITY, STATE & FEDERAL)		175.0	137.5	1					1		4			
#	SUB-TOTALS (STATE & FEDERAL)		6794.0	4825.0	6			7		7					

GUARDRAIL DETAILS & SUB-SUMMARY

CALC. BY D.M. DATE 2-24-88
CHKD. BY R.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

10 / 126

FAI-70-0.00
LIC-70-0.00

NOTE:
FOR DETAILS NOT SHOWN SEE SHEET 9.

TABLE (C)

MARK	EXISTING STATION TO STATION (MEDIAN) FROM	TO	202 GUARDRAIL REMOVED LIN.FT.	606 GUARDRAIL TYPE 5 LIN.FT.	606 ANCHOR ASSEM. STANDARD TYPE A EACH Single	Barr.	606 BRIDGE TERMINAL ASSEM. EACH B	A	606 GUARDRAIL BARRIER DESIGN TYPE 5 LIN.FT.	606 ANCHOR ASSEM. STANDARD TYPE T EACH	SEE STANDARD DRAWING	606 GUARDRAIL POSTS INSTALLED EACH	FROM SHEET NO.	PROPOSED STATION TO STATION (Same as existing except as noted) FROM	TO
7-G	42+41.8	44+46.6	204.8	125.0		1		1	50		GR-3 GR-4 GR-6		50	42+46.6	44+46.6
8-G	45+56.6	47+59.6	203.0	125.0		1		1	50		GR-3 GR-4 GR-6		50&51	45+56.6	47+56.6
24-G	268+74.	271+45	271.0	200.0		1		1	50		GR-3 GR-4 GR-6		53	268+70	271+45
25-G	272+30	275+11	281.0	200.0		1		1	50		GR-3 GR-4 GR-6		53	272+30	275+05
28-G	353+23.5	355+98.5	500.0	300.0							GR-6A		55	353+95.7	355+40.0
31-G	424+58.5	427+33.5	500.0	300.0							GR-6A		57	425+23.8	426+68.2
32-G	486+45.5	489+70.5	600.0	350.0							GR-6A		58	487+10.8	489+05.2
39-G	529+85.5	532+60.5	500.0	300.0							GR-6A		61	530+50.5	531+94.8
41-G	584+09.5	586+84.5	500.0	300.0							GR-6A		62	584+74.4	586+18.8
46-G	638+05.5	640+80.5	500.0	300.0							GR-6A		63	638+71.2	640+15.5
51-G	718+51.5	721+39	525.5	300.0							GR-6A		65	719+23.1	720+67.4
15-G	52+20	53+95	175.0	137.5	1					1	GR-6A GR-4, GR-4A	4	51		
16-G	60+75.5	62+78	202.5	125.0		1		1	75		GR-3 GR-4, GR-6		51	60+78	62+78
17-G	64+43.8	65+68.8	125.0	125.0		1		1	75		GR-3 GR-4, GR-6A	4	51	64+43.8	66+43.8
18-G	64+56	66+58.5	22.5	125.0		1		1	75		GR-3 GR-4, GR-6		51	64+56	66+56
	WESTBOUND														
53-G	716+59 N.W. Ramp	57+21.5 SR 158	437.5	400.0	1					1	GR-4, GR-4A				
SUB-TOTALS (STATE & FEDERAL)			5,547.3	3712.5	2	7		7	425	2		8			

SUB-SUMMARY GUARDRAIL

		202 GUARDRAIL REMOVED LIN.FT.	606 GUARDRAIL TYPE 5 LIN.FT.	606 ANCHOR ASSEM. STANDARD TYPE A EACH Single	Barr.	606 BRIDGE TERMINAL ASSEM. EACH B	A	606 GUARDRAIL BARRIER DESIGN TYPE 5 LIN.FT.	606 ANCHOR ASSEM. STANDARD TYPE T EACH	606 GUARDRAIL POSTS INSTALLED EACH
	CITY, STATE & FEDERAL									
	FROM SHEET 9 TABLE A	175.0	137.5	1					1	4
	FROM SHEET 9 TABLE B	175.0	137.5	1					1	4
≠	TOTAL CITY, STATE & FEDERAL	350.0	275.0	2					2	8
	STATE & FEDERAL									
	FROM SHEET 9 TABLE A	10789.5	89625	10			7		9	12
	FROM SHEET 9 TABLE B	6794.0	4825.0	6			7		7	
	FROM SHEET 10 TABLE C	5,547.3	3712.5	2	7		7	425	2	8
≠	TOTAL STATE & FEDERAL	23,130.8	17,500.0	18	7		21	425	18	20

≠ NOTE: CARRIED TO GENERAL SUMMARY

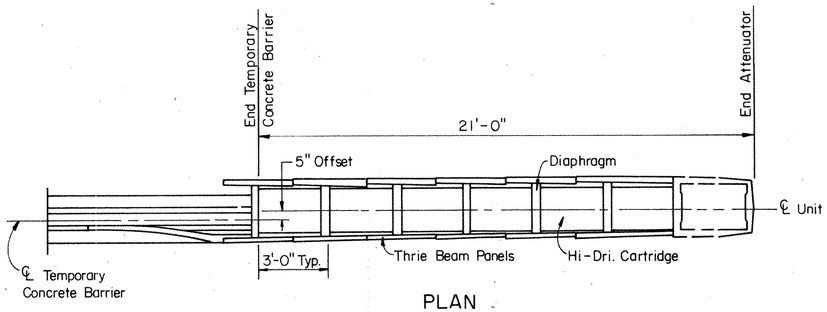
ATTENUATOR DETAIL

CALC. BY D.M.
DATE 2-29-88
CHECK. BY R.M.
DATE 3-4-88

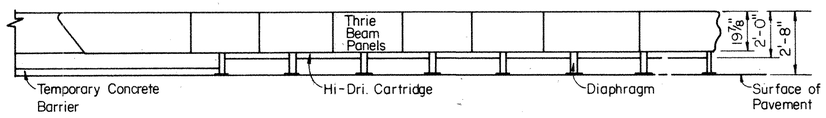
FHWA REGION	STATE	PROJECT	
5	OHIO		

11
126

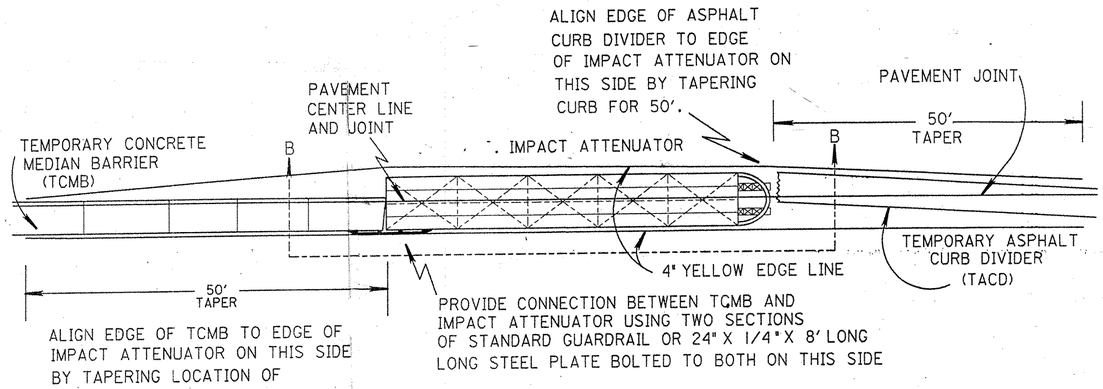
FAI-70-0.00
LIC-70-0.00



PLAN



ELEVATION



DETAIL B

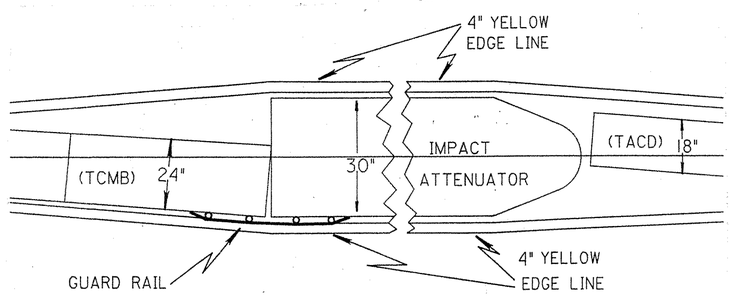
ITEM SPECIAL – IMPACT ATTENUATOR

THIS WORK SHALL CONSIST OF PROVIDING, MAINTAINING , AND SUBSEQUENTLY REMOVING AN IMPACT ATTENUATOR UNIT AND ACCESSORIES SUPPLIED BY ENERGY ABSORPTION SYSTEMS INC., IBM PLAZA, CHICAGO, ILLINOIS 60611, PLACED IN ACCORDANCE WITH THE MANUFACTURE'S SPECIFICATIONS AND PLAN DETAIL SHEETS AND IN REASONABLE CLOSE CONFORMITY WITH THE LINES, GRADES, THICKNESS, AND TYPICAL SECTIONS SHOWN ON THE PLANS OR AS ESTABLISHED BY THE ENGINEER.
WHEN THE ATTENUATOR FACILITIES ARE NO LONGER NEEDED IN ONE PHASE THEY SHALL BE REMOVED AND RESET AS SHOWN ON OTHER PHASES. THIS REMOVAL AND REPLACEMENT SHALL BE INCLUDED IN THE UNIT PRICE PER EACH. AFTER THE PROJECT HAS BEEN COMPLETED THE MATERIAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
THE NOSE OF THE ATTENUATOR SHALL BE MARKED WITH THREE EVENLY SPACED 4" HORIZONTAL STRIPES OF WHITE REFLECTIVE MATERIAL. THE FENDER PANELS SHALL BE MARKED WITH WHITE REFLECTIVE MATERIAL IN TWO VERTICAL STRIPES 4" IN WIDTH. THE CENTER OF THE FIRST STRIPE SHALL BE LOCATED 8" FROM THE REAR EDGE OF EACH PANEL AND THE CENTER OF THE SECOND STRIPE SHALL BE LOCATED 2'–11" FROM THE REAR EDGE OF EACH PANEL. THE UNIT SHALL BE BI–DIRECTIONAL AND IS IDENTIFIED AS MODEL NUMBER 200200NF6Gcz WITH TRANSITION PANEL.
IN ADDITION TO THE QUANTITIES LISTED IN THE GENERAL SUMMARY, AT LEAST ONE ADDITIONAL COMPLETE UNIT SHALL BE ON HAND AT ALL TIMES TO REPLACE DAMAGED UNITS. IN ANY CASE, WHEN A UNIT IS DAMAGED IT SHALL BE REPAIRED OR REPLACED WITHIN 12 HOURS. THIS ADDITIONAL ATTENUATOR WILL BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER EACH INSTALLED AND REMOVED DEVICE UNDER THIS ITEM.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM SPECIAL – IMPACT ATTENUATOR GREAT SYSTEM MODEL NO 200 200 NF6G(cz) 3 EACH

NOTE: After Phase I-A has been constructed and the Impact Attenuator for that phase is no longer needed this additional unit shall be stored on the project and be on hand to replace damaged units.



DETAIL B-B

ITEM 614 ASPHALT CURB DIVIDER WITH DELINEATION

CALC. BY D.W DATE 1-29-88
CHKD. BY RM DATE 3-4-88

FHWA REGION	STATE	PROJECT		12
5	OHIO			126

FAI-70-0.00
LIC-70-0.00

ITEM 614 ASPHALT CURB DIVIDER WITH DELINEATION

GENERAL

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE AN ASPHALT CURB DIVIDER USED TO SEPARATE OPPOSING LANES OF TRAFFIC WHEN A TWO (OR MORE) – LANE, TWO–WAY OPERATION IS USED IN A DIVIDED HIGHWAY WORK ZONE, IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

DESIGN AND PLACEMENT OF ASPHALT CURB DIVIDER

THIS ITEM SHALL BE PLACED IN ACCORDANCE WITH FIGURE 1 AND SHALL BE CONSTRUCTED OF COMPACTED 404 ASPHALT CONCRETE. COMPACTION SHALL BE SUFFICIENT TO PRODUCE A SMOOTH TOP AND SIDES AND TO PRODUCE A DENSITY SATISFACTORY TO THE ENGINEER.

WHERE THE CURB DIVIDER IS TO BE CONSTRUCTED ON TOP OF A CONCRETE PAVEMENT WHICH WILL BE THE FINAL SURFACE, OR WHERE THE ENGINEER DETERMINES THE RESIDUAL STAINS FROM THE REMOVAL OF THE DIVIDER MAY CONFUSE TRAFFIC, THE CONTRACTOR SHALL PROVIDE A BOND BREAKER AND SURFACE PROTECTOR. THE PROTECTOR MAY BE TWO COATS OF SPRAYED CONCRETE CURING COMPOUND OR OTHER MATERIAL APPROVED BY THE ENGINEER WHICH WILL MINIMIZE STAINING.

WHERE THE CURB WILL INTERFERE WITH PAVEMENT DRAINAGE (e.g., SUPERELEVATED OR TRANSITION SECTIONS), PROVISIONS SHALL BE MADE TO PREVENT PONDING OF WATER ON THE PAVEMENT SURFACE. THIS MAY BE ACCOMPLISHED WITH TRANSVERSE DRAINAGE SLOTS OR ALTERNATE MEASURES APPROVED BY THE ENGINEER.

TUBULAR MARKERS OR PYLONS PROVIDED FOR TRAFFIC CONTROL SHALL BE EMBEDDED TO THE FULL DEPTH OF ASPHALT AND SECURED TO AVOID BEING WORKED LOOSE BY THE DRAFT FROM PASSING TRAFFIC. AS SHOWN IN FIGURE 1, A 4–INCH LENGTH OF PIPE ATTACHED TO A BASE PLATE MAY BE USED TO SECURE THE TUBULAR MARKER OR PYLON. ALTERNATE METHODS MAY BE USED BUT MUST BE APPROVED IN ADVANCE BY THE ENGINEER.

DELINEATION OF ASPHALT CURB DIVIDER

THE ENTIRE SURFACE OF THE CURB DIVIDER (TOP AND SIDES) SHALL BE PAINTED YELLOW AND REFLECTORIZED IN ACCORDANCE WITH ITEM 621.

TUBULAR MARKERS OR PYLONS SHALL BE SPACED AT 50–FOOT INTERVALS ALONG THE CENTERLINE OF THE CURB DIVIDER (FIGURE 2). THE TUBULAR MARKERS OR PYLONS SHALL BE AT LEAST 36 INCHES IN LENGTH AND SHALL HAVE A MINIMUM WIDTH OR DIAMETER OF 2 1/2 INCHES AT THE TOP. THE MARKERS OR PYLONS SHALL BE REFLECTORIZED BY A MINIMUM OF TWO 4–INCH WHITE BANDS PLACED NOT MORE THAN 2 INCHES FROM THE TOP, WITH A 3 TO 6–INCH SPACE BETWEEN THE BANDS.

YELLOW–DOUBLE FACED REFLECTORS SHALL BE MOUNTED VERTICALLY ON THE TOP OF THE CURB AS SHOWN IN FIGURE 2. THESE REFLECTORS SHALL HAVE AN APPROXIMATELY SQUARE SHAPE AND SHALL HAVE A MINIMUM OF 9 SQUARE INCHES OF REFLECTIVE SHEETING ON EACH SIDE, FACING TRAFFIC.

BASIS OF PAYMENT

PAYMENT FOR ACCEPTED QUANTITIES COMPLETE IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE MADE PER LINEAL FOOT OF ACCEPTED ITEM 614 ASPHALT CURB WITH DELINEATION, WHICH SHALL INCLUDE MATERIALS, EQUIPMENT AND LABOR TO PLACE, MAINTAIN AND SUBSEQUENTLY REMOVE THE DIVIDER. MAINTENANCE INCLUDES REPLACEMENT OF DAMAGED OR INEFFECTIVE PYLONS OR REFLECTORS.

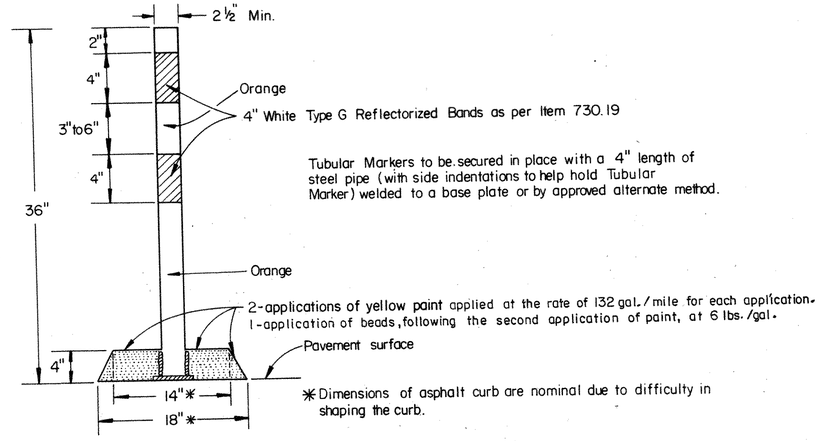
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

ITEM 614 ASPHALT CURB DIVIDER WITH DELINEATION 147,910 LIN. FT.

ITEM 614 – TEMPORARY ASPHALT DIVIDER

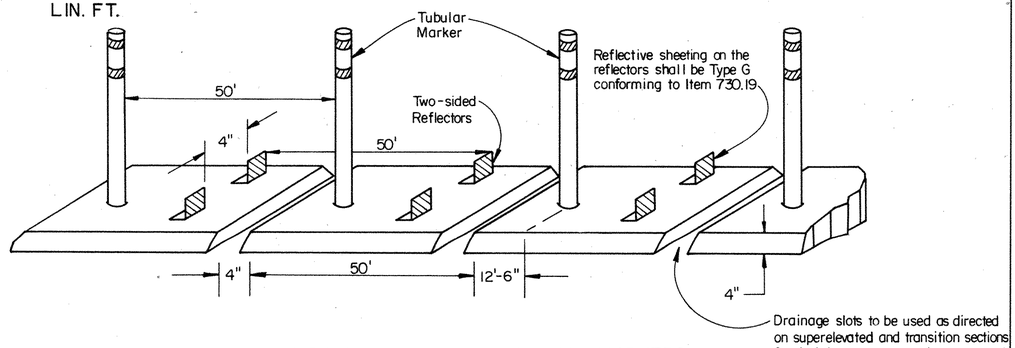
PHASE 1A & 1B		
STA. 0 + 11.55 – STA. 143+21.06 W.B.		
STA. 250 + 00 – STA. 251+54.42 W.B.	14,464	LIN. FT.
STA. 637+00 E.B. – STA. 641+09.49 & STA. 0+00 – STA. 67+00	7,110	LIN. FT.
* STA. 0+00 E.B. TO STA. 67+00 E.B. + 200'	6900	LIN. FT.
PHASE 2-A & 2-B		
STA. 0+11.55 TO 251+54.42 (See Above)	14,464	LIN. FT.
STA. 631+72.09 W.B. TO STA. 641+09.49 W.B.		
STA. 0+00 W.B. TO STA. 57+00 W.B.	6,638	LIN. FT.
* STA. 0+00 W.B. TO STA. 57+00 W.B. +200'	5900	LIN. FT.
PHASE 3		
STA. 264+38.60 TO 508+04.42	24,366	LIN. FT.
PHASE 4		
STA. 264+38.60 TO 508+04.42	24,366	LIN. FT.
PHASE 5		
STA. 520+88.60 TO 555+41.81 EQUATION 733+97.69 = 550+00.00	21,851	LIN. FT.
PHASE 6		
STA. 520+88.60 TO 555+41.81 EQUATION 733+97.69 = 550+00.00	21,851	LIN. FT.
	147,910	LIN. FT.

* During Phases I-A and 2-A, when the asphalt divider is constructed to the right of the traveling public, it shall be painted white. When painting the asphalt divider white all references to "Yellow" as per Item 614 Asphalt Curb Divider With Delineation, shall be "White."



TUBULAR MARKER INSTALLATION DETAIL FIGURE 1

NOTE:
One reflector may be omitted when traffic is being maintained on the opposite side of the divider during Phases I-A and 2-A.



PLACEMENT OF REFLECTORS & TUBULAR MARKERS ON ASPHALT CURB DIVIDERS FIGURE 2

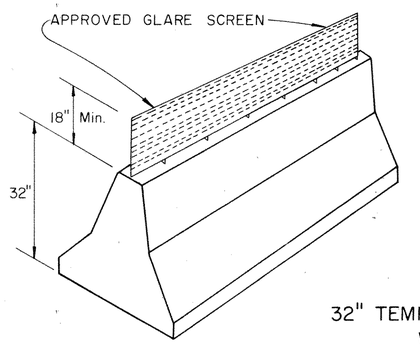
ITEM 622 TEMPORARY CONCRETE BARRIER, AS PER PLAN , I

CALC. BY	D.M.
DATE	1-29-88
CHECK. BY	R.M.
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

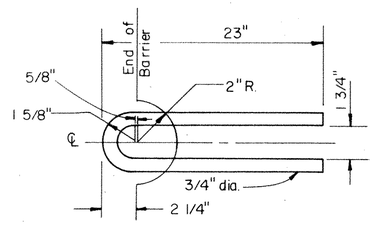
13
126

FAI-70-0.00
LIC-70-0.00

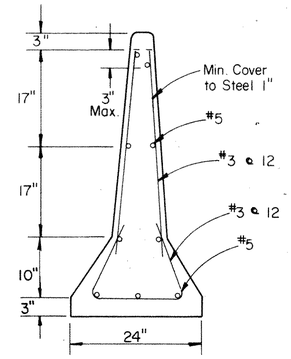


See MC-9A
For Barrier Details

DESIGN "A"
32" TEMPORARY CONCRETE BARRIER
WITH GLARE SCREEN



STEEL ROD CONNECTOR



SECTION A-A

ITEM 622 TEMPORARY CONCRETE BARRIER, AS PER PLAN , I

This work shall consist of the furnishing, installation, maintenance and subsequent removal of a 32" Temporary Concrete Barrier with an 18" minimum height glare screen (Design A) or a 50" Temporary Concrete Barrier (Design B) at the locations shown on the plans. (Phases 1 thru 6)

DESIGN "A"

The Temporary Concrete Barrier "Design A" shall be constructed using one of the following systems or an approved equal.

1. SYRO GLAREFOIL
   Syro Steel Company
   1170 N. State Street
   Girrard, Ohio 44420
   (216) 545-4373

2. CARSONITE MODULAR GLARE SCREEN
   Carsonite International
   2900 Lockheed Way
   Carson City, Nevada 89701
   (702) 883-5104 (800) 648-7974

3. FORWARD GLARE SCREEN
   Proven Products, Inc.
   7560 S.W. Laview Drive
   Portland, Oregon 97219
   (503) 244-9185

Paddle or intermittent type glare screen shall be designed using a 20° cut-off angle based on tangent alignment. That spacing shall be used throughout the barrier length without regard to the barrier curvature.

Glare screen system attached to the 32" temporary concrete barrier shall be securely fastened using the hardware and procedures specified by the manufacturer.

DESIGN "B"

The Temporary Concrete Barrier Design "B" shall be constructed using a 50" design and reinforced as shown this sheet.

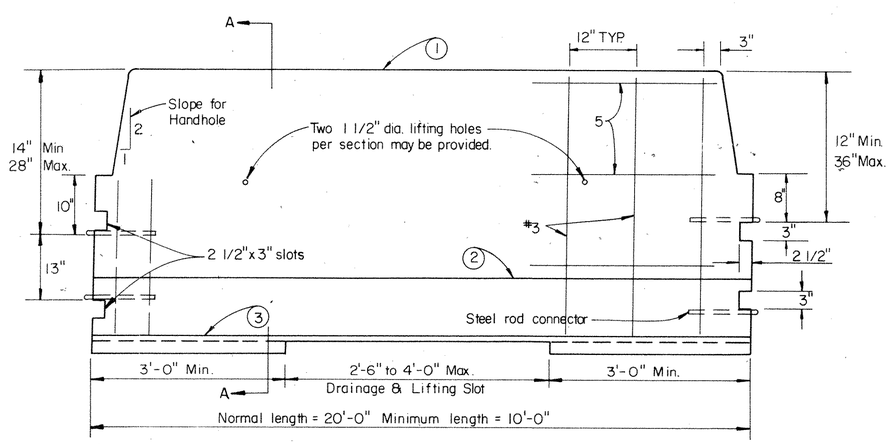
When the temporary concrete barrier is no longer needed in one phase it shall be removed and reset as shown on other phases. This removal and replacement shall be included in the unit price per Lin. Ft.

Payment shall include all labor, material and equipment necessary to perform the work and shall be paid for at the unit price bid per lineal foot for " Item 622 Temporary Concrete Barrier, As Per Plan I.

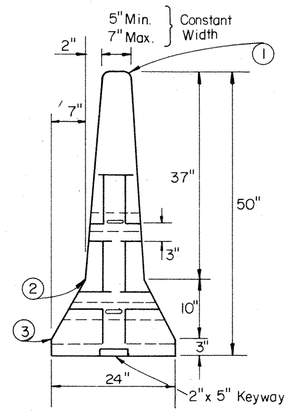
The following quantity has been carried to the General Summary for the above purpose.

Item 622 Temporary Concrete Barrier, As Per Plan, I 1380 Lin. Ft.

NOTE:
After the project has been completed this temporary concrete barrier shall become the property of the contractor and removed by him.



ELEVATION



END

LEGEND

1. 1" Radius and 3/4" Chamfer, all top and end corners.
2. Permissible 10" Radius
3. Permissible 1" Radius

NOTES:

1) See MC-9 For PLAN VIEW
2) See MC-9A For CONNECTING PIN DETAIL & BASE RESTRAINT NOTE, DETAILS NOT SHOWN
3) See Item 622.02 & 622.04 O.D.O.T. C&M SPEC.

DESIGN "B"
50" TEMPORARY CONCRETE BARRIER

CALC. BY D.M. DATE 2-29-88
CHKD. BY RM DATE 3-4-88

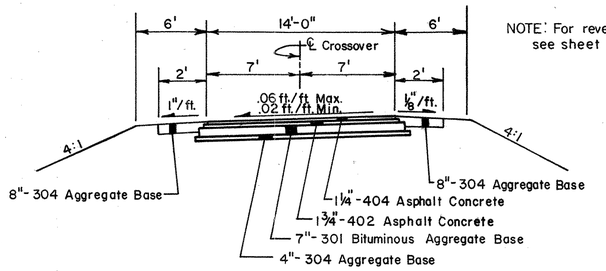
FHWA REGION	STATE	PROJECT	
5	OHIO		

14/126

FAI-70-0.00
LIC-70-0.00

CROSSOVER DETAILS

TYPICAL SECTION OF CROSSOVER



NOTE: For reverse superelevation see sheet 14-A.

NOTE:
EARTHWORK WILL BE PAID FOR UNDER ITEM 615 TEMPORARY ROADS – LUMP SUM, PAVEMENT WILL BE PAID FOR UNDER TEMPORARY PAVEMENT CLASS "A" AS PER PLAN S.Y. TWO-FOOT SHOULDERS WILL BE PAID FOR UNDER ITEM 304 – AGGREGATE BASE C.Y.
THE COST OF REMOVING ALL TEMPORARY CROSSOVERS AND RETURNING THEM TO ORIGINAL CONDITION SHALL BE INCLUDED IN THE COST OF THE PERTINENT ITEMS AS PER SECTION 615.03 OF THE SPECIFICATIONS.

ESTIMATED QUANTITIES

ITEM 615 – TEMPORARY PAVEMENT, CLASS A, AS PER PLAN *(see note A)*	6239	Sq. Yd.
ITEM 615 – TEMPORARY ROADS	LUMP	
ITEM 304 – AGGREGATE BASE AS PER PLAN	331	Cu. Yd.

The above quantities have been carried to the General Summary.

CALCULATIONS FOR ESTIMATED QUANTITIES

STA. 635+36.04
ITEM 615-TEMPORARY PAVEMENT, CLASS A, AS PER PLAN:
450 x 14 = 6300 S.F. x 2 = 12,600 S.F. ÷ 9 = 1400 S.Y.

ITEM 304-AGGREGATE BASE
4(390 x 2 x 2⅔) ÷ 27 = 77 C.Y.

STA. 257+96.51
ITEM 615-TEMPORARY PAVEMENT, CLASS A, AS PER PLAN:
(590 x 14) ÷ 9 = 918 x 2 = 1836 S.Y.
ITEM 304-AGGREGATE BASE
4(480 x 2 x 2⅔) ÷ 27 = 95 C.Y.

STA. 514+46.51
ITEM 615-TEMPORARY PAVEMENT, CLASS A, AS PER PLAN:
(590 x 14) ÷ 9 = 918 x 2 = 1836 S.Y.
ITEM 304-AGGREGATE BASE
4(480 x 2 x 2⅔) ÷ 27 = 95 C.Y.

STA. 561+00.00
ITEM 615-TEMPORARY PAVEMENT, CLASS A, AS PER PLAN:
(375 x 14) ÷ 9 = 583.5 x 2 = 1167 S.Y.
ITEM 304-AGGREGATE BASE
4(320 x 2 x 2⅔) ÷ 27 = 64 C.Y.

NOTE A
ITEM 615- Temporary Pavement, Class A, As Per Plan
The rigid pavement option will not be a option.

CROSSOVER DETAIL NOTES

ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED AND REPLACED WITH APPROPRIATE MARKINGS AS DETAILED ON SHEET 87-88. ALL MARKINGS WILL BE MAINTAINED DURING THE CLOSURE. THE TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND ALL NECESSARY MARKINGS SHALL BE RETURNED TO THE FINISHED PORTION.

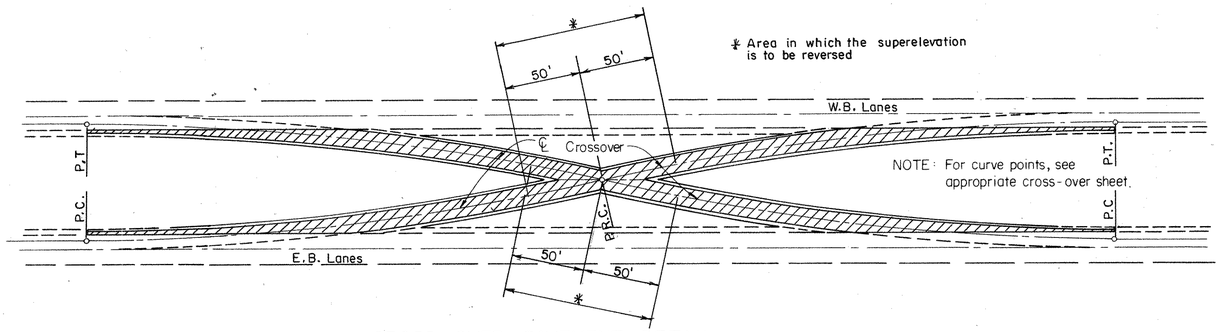
CROSS-OVER PAVEMENT DETAIL

CALC. BY	D.M.
DATE	2-29-88
CHECK. BY	RM
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

14A
126

FAI-70-0.00
LIC-70-0.00

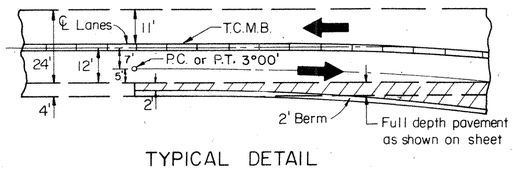


NOTE: For curve points, see appropriate cross-over sheet.

CROSS-OVER PAVEMENT DETAIL

		MEDIAN WIDTH		
		84'	50'	60'
Dc = 3°	△	12°44'15"	10°10'07"	10°59'09"
	L	424.58'	338.96'	366.20
	T	213.17'	169.93'	183.66'

CURVE DATA



TYPICAL DETAIL AT P.C. or P.T.

TEMPORARY PAVEMENT CLASS A AS PER PLAN

CROSSOVER DETAILS PHASE 1-A

CALC. BY	DATE
J. [illegible]	2-29-88
CHKD. BY	DATE
[illegible]	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

15
126

FAI-70-0.00
LIC-70-0.00

STA. 574+00 RT. & LT.
ROAD CONSTRUCTION AHEAD
OW-128-48
TYPE A
Exist. sign to be removed
25'x8.5'
GG-SPECIAL 27'x11'
70 EAST
256
EXIT ONLY
Black on Yellow
Proposed sign to remain (Legend changed as described above)
EXIT 110B
BRICE RD
REYNOLDSBURG
EXIT ONLY
EXIT 110A
BRICE Rd. SOUTH
STA. 579+00± EXIST. OVERHEAD SIGN
The existing sign shall be removed and become the property of the contractor.
Proposed sign to be attached as per Std. Drwg. TC-22.20
After Phase I-A is completed and traffic moved to Phase 2-A this proposed shall be changed to read as per the existing sign. All the cost as described above shall be included with Item 614 Maintaining Traffic.
The contractor shall submit a drawing of his method of attaching the proposed sign to the existing structure. This method shall be approved by the Project Engineer befor installation. After Phase I-A has been completed this sign shall be removed and become the property of the contractor.
STRUCTURE MOUNTED
GG-SPECIAL 27'x10'
70 EAST
256
Exit Only
EXIT 110B
BRICE RD
REYNOLDSBURG
EXIT ONLY
Black on Yellow
BEGIN WORK
STA. 586+50
STA. 589+00
CENTER LANE CLOSED AHEAD
OW-122-48
50 MPH
OW-143-24
70 EAST
M-5-36
Type A
GG-SPECIAL 12'x7'
LEFT LANE
GG-SPECIAL 13'x8'
RIGHT LANE
GEP-144 12'x2'
EXITS 112 A-B
STA. 592+50
Black on Yellow
580
℄ I-70
585
590
Exist. Br. No. FRA-70-2392
Exist. Br. No. FRA-70-2390
Exist. Lane Lines
E.B. LANES
Exist. 8" White Channelizing Lines
Begin 8" Channelizing Line
Brice Rd.
Temp. Raised Pav't. Markers Sta. 586+50 to Sta. 607+40 (White, C.L.)
Exist. Yellow Edge Line
Exist. Lane Line
Prop. 8" White Channelizing Line
Exist. white edge line
EXIST. Gore Marking
EXIT RAMP To Brice Rd.
Match Line Sta. 594+00
Exit Ramp to Brice Road
595
600
605
610
℄ I-70
Temp. Raised Pav't. Markers Sta. 600+50 to Sta. 607+25 (White, L.L.)
Temp. Raised Pav't. Markers Sta. 600+50 to Sta. 631+72 (White)
Temp. Raised Pav't. Markers Sta. 607+25 to Sta. 631+72 (Yellow)
Item 622 Temporary Concrete Barrier
130'±
Flashing Arrow Panel
Match Line Sta. 594+00
Exist. Lane Lines
Prop. 8" White Channelizing Line
Exist. White Edge Line
Exist. Lane Line
Temporary 8" White Channelizing Line
Exist. Yellow Edge Line
12'
12' Min.
Temp. White Edge Line
660' Taper
Match Line
TYPE III Barricade
Exist. Channelizing Line and Edge Line to be Removed
Crash Attenuator For Details See Sheet 11.
Tapered End Section
Temp. Raised Pav't. Markers Sta. 600+50 to Sta. 637+00 (White)
Temporary Light Pole (See sheet 23)
Temp. Raised Pav't. Markers Sta. 607+40 to Sta. 637+00 (Yellow)
STA. 607+40±
Prop. Yellow edge line
Exist White Edge Line
Entrance Ramp From Brice Road (to be Detoured)
R-75-48 ROAD CLOSED
OC-8-60 END CONSTRUCTION
750'
GG-SPECIAL 12'x7' LEFT LANE
70 EAST
STA. 597+25 LT.
OW-60C-48
GG-SPECIAL 12'x7' LEFT LANE
STA. 597+25 RT.
GEP-144 12'x2' EXITS 112 A-B
GG-SPECIAL 13'x8' RIGHT LANE
Black on Yellow
GG-SPECIAL 13'x8' KEEP RIGHT
STA. 605+00
GEP-144 12'x2' EXITS 112 A-B
Black on Yellow
Approximately 1 Mile apart
TWO WAY OPERATION ENDS 1 MILES.
Special 8'x4'
End Temp. Concrete Barrier Sta. 641+00
Crash Attenuator see sheet 11.
Pylons at 50' c/c spacing thruout closure with delineation and asphalt divider see sheet 12.
R-38R-24
Temp. white edge line
OW-7-1-36
DO NOT PASS
R-33-30
SPEED LIMIT 50
R-10-48
1/4 TO 1/2 MILE SPACING; BEGINNING AT BRICE RD, EASTERLY.
Omit R-33-30 sign when maintaining 2-lanes.
Alternate at 1500 intervals
W. B. Lanes
MATCH LINE
℄ I-70
9'0" Median
12'
Exist Stnd. #4 C.B.
632
633
634
635
636
637
638
639
Dc=3° 00'
2'Berm
(Yellow)
(White)
Temp. Edge Line (White)
Temp. Edge Line
Drums at 40' c/c spacing
Type III Barricade
Item 614 Asph. Curb Divider with Delineation, (See sheet 12)
Item 622 Temporary Concrete Barrier For Quantities See Sheet 28
E.B. Lanes
Sta. 637+00
12' Min.
*Conduit
Tapered End Section
660' Temp. Concrete Barrier, As Per Plan, see sheet 13.
+40
660' Taper
1787'
STA. 613+85
OW-6-48
50 MPH
OW-143-24
Remove existing Edge Line (Typical)
P.C. Sta. 631+72.09, 35' Rt. = Sta. 0+00 ℄ Temp. Crossover
P.C. Sta. 3+66.20 = Sta. 635+36.04 ℄ I-70
P.T. Sta. 639+00.35' Lt. = Sta. 7+32.40 ℄ Temp. Crossover
OW-32-96
R-75-48 ROAD CLOSED
Type B warning lights
DIRECTION OF TRAFFIC
NOTE: For details not shown see sheets 11-14-A.
NOTE: For Temporary Raised Pav't. Markers Type B and Barrier Reflectors see sheets 25 & 26.
* Payment included in the Lump sum for Item 615 Temporary Roads.
NOTE: Item 614 Asph. Curb Divider with delineation to be adjusted, at the direction of the Project Engineer, to construct the right half of the eastbound lanes. (See note on sheet 12)
NOTE: End temporary conc. barrier Sta. 67+00±.

CROSSOVER DETAILS PHASE 1-A

CROSSOVER DETAILS PHASE 2-A

CALC. BY D.M.M. DATE 2-29-88
CHKD. BY R.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

16/126

FAI-70-0.00
LIC-70-0.00

W. B. Lanes
60' Median
℄ I-70
E. B. Lanes
MATCH LINE STA. 623+22
A
A
#Acceleration Ramp
2600'
1825'
ROAD CONSTRUCTION AHEAD
Type A
OW 128-48
50 MPH
OW-143-24
LEFT LANE CLOSED AHEAD
Type A
OW-123-48
OW-600-48
Sta 615+25
At end of Acceleration Ramp

NOTE: Place two(2) signs (OW-128-48) according to The Ohio Manual of U.T.C.D., right and left of the Ramp at a location as determined in the field by the Engineer

NOTE: Item 614 Asph. Curb Divider with delineation to be adjusted, at the direction of the Project Engineer, to construct the right half of the westbound lanes. (See note sheet 12)

Item 614 Asph. Curb Divider with Delineation. (See Sheet 12)

NOTE: Item 614 Asphalt Curb Divider with Delineation to be placed from Sta. 63+72 to Sta. 57+00 Westbound.

NOTE: Temporary asphalt divider to be placed at the direction of the project Engineer, at Sta. 57+00, to maintain traffic from Ramp A when constructing the left half of the westbound lanes.

End Temp. Conc. Barrier As Per Plan Sta. 641+00

OC-8-60 END CONSTRUCTION
750'
(White)
(Yellow)
Temp. Edge Line
Temp. Yellow edge line
Temp. White edge line
Temp. white edge line
Dc = 3°00'
Dc = 3°00'
631
632
633
634
636
637
638
639
Flashing Arrow Panel
Exist. Stnd. #4 C.B.
* Conduit
Tapered End Section
750'
OW-5-48
750 FT
OW-145-24
60' Median
MATCH LINE
Sta. 623+22
A
A
E. B. Lanes
W. B. Lanes
℄ I-70
60' Median
200'
WRONG WAY
R-41A-36
50'
780' Taper
R.C. Sta. 631+72.09, 35' Lt. = Sta. 0+00 ℄ Temp. Crossover
PCC. Sta. 3+66.20 = ℄ I-70 Sta. 635+36.04
Drums at 40' c/c spacing
OW-32-96
720' Temp. Conc. Barrier As Per Plan See Sheet 13.
P.T. Sta. 639+00, 35' Rt. Sta. 7+32.40 C Temp. Crossover
Crash Attenuator See Sheet 11.
R-38R-24
R-10-48 SPEED LIMIT 50
Pylons at 50' c/c spacing thruout closure with asphalt divider and delineation See Sheet 12.
1/4 TO 1/2 MILE SPACING
OW-71-36
Alternately at 1500' Intervals
R-33-30
DO NOT PASS
Omit R-33-30 sign when maintaining 2-lanes.
TWO WAY OPERATION ENDS ☐ MILES Special 8"x4"
Approximately 1 Mile apart

DIRECTION OF TRAFFIC

* Payment included in the Lump sum for item 615 Temporary Roads.

NOTE: For details not shown see sheets 11-14-A.

NOTE: For Temporary Raised Pav't. Markers Type B, Barrier Reflectors see sheets 25 & 26.

CROSSOVER DETAILS PHASE 1-B & 2-B

CALC. BY	D.M.
DATE	2-29-88
CHKD. BY	D.M.
DATE	3-4-88

FHWA REGION	STATE	PROJECT		17/126

FAI-70-0.00
LIC-70-0.00

PHASE 1-B
PHASE 2-B
DIRECTION OF TRAFFIC
W. B. Lanes
E. B. Lanes
Median
84'
€ I-70
TWO WAY OPERATION ENDS □ MILES
Special 8' x 4' Approximately 1 Mile apart
DO NOT PASS R-33-30
Alternate at 1500' Intervals
SPEED LIMIT 50 R-10-48
Pylons at 50' c/c spacing thruout closure with asphalt divider and delineation See sheet 12
Crash Attenuator See sheet 11.
720' Temp. Concrete Barrier, As Per Plan, see sheet 13.
660' Temp. Concrete Barrier As per plan, see sheet 13.
Temp. White edge line
OW-71-36
OW-32-96
R-38R-24
R-41A-36
WRONG WAY
OW-5-48
750 FT OW-145A-30
Begin Temp. Concrete Barrier Sta. 251+75.42
P.C. Sta. 253+75.42, 47' Lt. = Sta. 0+00 € Temp. Crossover
P.C. Sta. 253+75.42, 47' Rt. = Sta. 0+00 € Temp. Crossover
R-10-48 1/4 TO 1/2 MILE SPACING
P.C.C. Sta. 4+24.58 = € I-70 Sta. 257+96.51
P.T. Sta. 262+17.60, 47' Rt. = Sta. 8+49.16 € Temp. Crossover
P.T. Sta. 262+17.60, 47' Lt. = Sta. 8+49.16 € Temp. Crossover
Dc=3°00'
2' Berm
Conduit
Tapered End Section
Temp. Edge Line
(Yellow)
(White)
Drums at 40' c/c spacing
Flashing Arrow Panel
780' Taper
200'
50'
1000'
1600'
2600'
750'
12'
14'
OW-60D-48
OW-60C-48
OW-123-48
OW-122-48
OW-143-24
OW-128-48
Type A
LEFT LANE CLOSED AHEAD
RIGHT LANE CLOSED AHEAD
ROAD CONSTRUCTION AHEAD
50 MPH
END CONSTRUCTION OC-8-60
Type B warning lights
ROAD CLOSED R-75-48
Type III Barricade
Remove existing edge line (Typical)
Begin Rumble Strips
End Rumble Strips
140'
2100' (See detail sheet 7-B)
500'
250'
OW-6-48
OW-62-48
BUMP
+35.42
254
255
256
257
258
259
260
261
262
263

* Payment included in the Lump sum for item 615 Temporary Roads.

NOTE: For details not shown see sheets 11-14-A.

NOTE: For Tempory Raised Pav't. Markers Type B, Barrier Reflectors Markers and Curb Reflectors see sheets 25 & 26.

CROSSOVER DETAILS PHASE 3

CALC. BY	D.M.
DATE	2-29-88
CHECK. BY	R.M.
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00

18
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OC-8-60 END CONSTRUCTION

750'

P.C. Sta. 253+75.42, 47' Rt.=
Sta. 0+00 ℄ Temp. Crossover

W.B. Lanes

8'4" Median

℄ I-70

253 254 255 256 257 258 259 260 261 262 263

Tapered End Section

+57.60

660' Temp. Concrete Barrier, As Per Plan, see sheet 13.

R-38R-24

End Temp. Concrete Barrier Sta. 264+17.60

Crash Attenuator See sheet 11.

Pylons at 50' c/c spacing thruout closure with asphalt divider see sheet 12.

Dc = 3° 00'

2' Berm

(Yellow)

Dc = 3° 00'

2' Berm

* Conduit

(White)

Temp. Edge Line

Remove existing edge line (Typical)

Drums at 40' c/c spacing

Type III Barricade

E. B. Lanes

2600' 1600' 1000' 50' 780' Taper 2600' 250'

500' 2100' (See detail sheet 7-8)

Flashing Arrow Panel

Begin Rumble Strips

End Rumble Strips

P.C.C. Sta. 4+24.58
℄ I-70
Sta. 257+96.51

* Payment included in the Lump sum for item 615 Temporary Road.

ROAD CONSTRUCTION AHEAD OW-128-48

Type A

50 MPH OW-143-24

RIGHT LANE CLOSED AHEAD OW-122-48

Type A

OW-60C-48

BUMP OW-62-48

50 MPH OW-6-48

OW-32-96

ROAD CLOSED R-75-48

Type B warning lights

DIRECTION OF TRAFFIC

R-41A-36 TWO WAY TRAFFIC

R-33-30 DO NOT PASS

P.T. Sta. 518+67.60, 47' Rt.=
STA. 8+49.16 ℄ Temp. Crossover

OW-60D-48

TWO WAY OPERATION ENDS ☐ MILES Special 8'x 4' Approximately 1 Mile apart

P.T. Sta 262+17.60, 47' Lt.
Sta. 8+49.16 ℄ Temp. Crossover

SPEED LIMIT 50 R-10-48

1/4 TO 1/2 MILE SPACING

Alternate at 1500' Intervals

DO NOT PASS R-33-30

OW-7I-36

OW-143-24

R-10-48

1/4 TO 1/2 MILE SPACING

OW-122-48

OW-60C-48

OW-62-48

OW-6-48

OW-143-24

OW-32-96

R-75-48

R-41A-36

R-33-30

OW-7I-36

OW-128-48

NOTE: For Temporary Raised Pav't. Markers Type B, Barrier Reflectors and Curb Reflectors see sheets 25 & 26.

NOTE: For details not shown see sheets 11-14-A.

OW-123-48

Type A

LEFT LANE CLOSED AHEAD 50 MPH OW-143-24

Type A

ROAD CONSTRUCTION AHEAD OW-128-48

Alternate at 1500' Intervals

SPEED LIMIT 50 DO NOT PASS R-33-30

Pylons at 50' c/c spacing thruout closure with asphalt divider and delineation. See sheet 12.

Crash Attenuator See sheet 11.

720' Temp. Concrete Barrier, As Per Plan, see sheet 13.

OW-32-96

Drums at 40' c/c spacing

Temp. white edge line

OW-5-48 730' LT

OW-16A-30

750'

Dc = 3° 00'

8'4" Median

510 511 512 513 514 517 518 519 ℄ I-70

Conduit

Tapered End Section

Dc = 3° 00'

2' Berm

2' Berm

(Yellow)

Temp. Edge Line

(White)

E. B. Lanes

200'

780' Taper 50' 1000' 1600' 2600'

W.B. Lanes

Flashing Arrow Panel

750'

TWO WAY OPERATION ENDS ☐ MILES Special 8'x 4' Approximately 1 Mile apart

Begin Temp. Conc. Barrier Sta. 508+25

R-38R-24

P.C. Sta. 510+25.42, 47' Lt.=
Sta 0+00 ℄ Temp. Crossover

P.C.C. Sta. 4+24.58
℄ I-70 Sta. 514+46.51

OC-8-60 END CONSTRUCTION

CROSSOVER DETAILS PHASE 4

CALC. BY D.M
DATE 1-29-88
CHECK. BY RM
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5			

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126

FAI-70-0.00
LIC-70-0.00

NOTE: For Temporary Raised Pavt. Markers Type B, Barrier Reflectors Markers and Curb Reflectors see sheet 25 & 26.

DIRECTION OF TRAFFIC

W. B. Lanes

E. B. Lanes

84' Median

Median 84'

Flashing Arrow Panel

Type A

Type III Barricade

Type B warning lights

Drums at 40' c/c spacing

Tapered End Section

Temp. Edge Line

(White)

(Yellow)

Dc = 3°-00'

2' Berm

* Conduit

Temp. white edge line

Remove existing edge line (Typical)

Begin Rumble Strips

End Rumble Strips

2100' (See detail sht. 7)

Alternate at 1500' Intervals

Approximately 1 Mile apart

Special 8' x 4'

Pylons at 50' c/c spacing thruout closure with asphalt divider, see sheet 12.

Crash Attenuator See sheet 11.

720' Temp. Concrete Barrier, As Per Plan, See Sheet 13.

660' Temp. Concrete Barrier, As Per Plan, see sheet 13.

End Temp. Concrete Barrier Sta. 264+17.60

Begin Temp. Conc. Barrier Sta. 508+25.42

P.C. Sta. 253+75.42, 47' Lt. = Sta. 0+00 ℄ Temp. Crossover

P.C. Sta. 510 + 25.42 47' Rt. = Sta. 0+00 ℄ Temp. Crossover

P.T. Sta. 262+17.60 47' Rt. = Sta. 8+49.16 ℄ Temp. Crossover

P.T. Sta. 518+67.60 47' Lt. = Sta. 8+49.16 ℄ Temp. Crossover

P.C.C. Sta. 4+24.58 ℄ I-70 Sta. 257+96.51

P.C.C. Sta. 4+24.58 ℄ I-70 Sta. 514+46.51 +85.42

℄ I-70

℄ Yellow

* Payment included in the Lump sum for item 615 Temporary Roads

NOTE: For details not shown see sheets 11-14-A.

2600' 1600' 1000' 50' 780' Taper 200' 750' 140' 250' 2100' (See detail sht. 7) 500' 780' Taper 50' 1000' 1600' 2600'

253 254 255 256 257 258 259 260 261 262

510 511 512 513 514 516 517 518 519

OW-71-36 SPEED LIMIT 50 R-10-48 1/4 TO 1/2 MILE SPACING

OW-128-48

OW-123-48

OW-143-24

OW-122-48

OW-60C-48

OW-60D-48

OW-6-48 50 MPH

OW-62-48 BUMP

OW-32-96

R-38R-24

R-33-30 DO NOT PASS

R-41A-36 WRONG WAY DO NOT PASS

R-75-48 ROAD CLOSED

R-38-24

OW-5-48 750 FT OW-145A-30

TWO WAY OPERATION ENDS □ MILES Special 8' x 4' Approximately 1 Mile apart

END CONSTRUCTION 09-8-00

0-9-8-0 CONSTRUCTION END

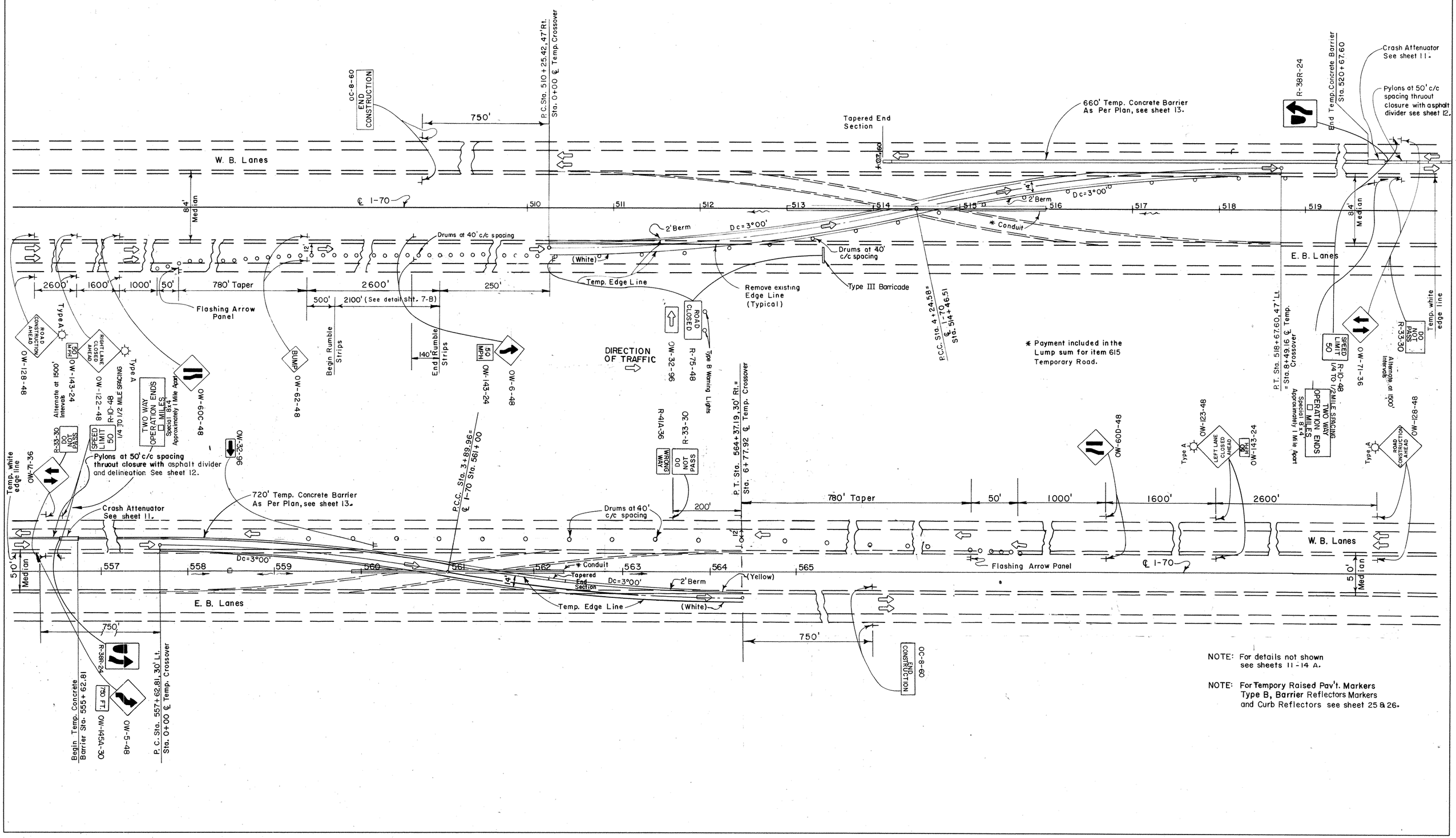
CROSSOVER DETAILS PHASE 5

CALC. BY D.M. DATE 2-29-88
CHKD. BY D.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

20
126

FAI-70-0.00
LIC-70-0.00



NOTE: For details not shown see sheets 11-14 A.

NOTE: For Tempory Raised Pav't. Markers Type B, Barrier Reflectors Markers and Curb Reflectors see sheet 25 & 26.

CROSSOVER DETAILS PHASE 6

CALC. BY D.M. DATE 2-29-88
CHKD. BY R.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00


OC-8-60 END CONSTRUCTION
750'
P.C. Sta. 510+25.42, 47' Lt.= Sta. 0+00 ℄ Temp. Crossover
W. B. Lanes
(White)
Temp. Edge Line
(Yellow)
Dc=3°00'
2' Berm
Tapered End Section
* Conduit
Dc=3°00'
Temp. white edge line
84' Median
Flashing Arrow Panel
E. B. Lanes
R-38R-24
End Temp. Concrete Barrier Sta. 520+67.70
OW-5-48
OW-145A-30
750 FT.
2600'
1600'
1000'
50'
780' Taper
200'
DO NOT PASS
WRONG WAY
R-33-30
R-41A-36
Drums at 40' c/c spacing
P.C.C. Sta. 4+24.58
C I-70 Sta. 514+46.51
OW-32-96
720' Temp. Concrete Barrier, As Per Plan, See Sheet 13
P.T. Sta. 518+67.70, 47' Rt.= Sta. 8+49.16 ℄ Temp. Crossover
Crash Attenuator See sheet 11.
Pylons at 50' c/c spacing thruout closure with asphalt divider, see sheet 12.
DIRECTION OF TRAFFIC
ROAD CONSTRUCTION AHEAD
OW-128-4
Type A
50 MPH
OW-143-24
LEFT LANE CLOSED AHEAD
OW-123-48
OW-60D-48
TWO WAY OPERATION ENDS □ MILES
Special 8'x4'
Approximately 1 Mile Apart
SPEED LIMIT 50
R-10-48
1/4 TO 1/2 MILE SPACING
OW-71-36
Alternate at 1500' Intervals
OW-128-48
NOTE: For Temporary Raised Pav't. Markers Type B, Barrier Reflectors and Curb Reflectors see sheet 25 & 26.
Type B Warning Lights
R-75-48
ROAD CLOSED
P.T. Sta. 564+37.19, 30' Lt. Sta. 6+77.92 ℄ Temp. Crossover
OW-6-48
Begin Rumble Strips
140'
End Rumble Strips
2100' (See detail sheet 7-B)
500'
OW-62-48
BUMP
END WORK STA. 600+67.19
OW-60C-48
RIGHT LANE CLOSED AHEAD
OW-122-48
1/4 TO 1/2 MILE SPACING TO BEGIN 1/4 MILE EAST OF STA. 600+67.19
Type III Barricade
Drums at 40' c/c spacing
Temp. White edge line
Exist. 2-2A C.B.
2' Berm
Dc=3°00'
* Conduit
Remove existing edge line (Typical)
℄ I-70
50' Median
E.B. Lanes
Temp. Edge Line
Tapered End Section
660' Temp. Concrete Barrier As Per Plan, see sheet 13.
P.C.C. Sta. 3+38.96 = ℄ I-70 Sta. 561+00
P.C. Sta. 557+62.81, 30' Rt.= Sta. 0+00 ℄ Temp. Crossover
Begin Temp. Concrete Barrier Sta. 555+62.81
Crash Attenuator see sheet 11.
Pylons at 50' c/c spacing thruout closure with asphalt divider, see sheet 12.

NOTE: For details not shown see sheets 11-14A.

* Payment included in the Lump sum for item 615 Temporary Roads.

DETOUR MAPS

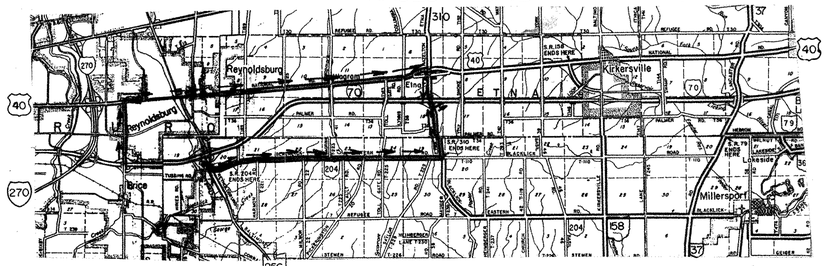
CALC. BY D.M.
DATE 2-29-88
CHECK. BY R.M.
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

22
126

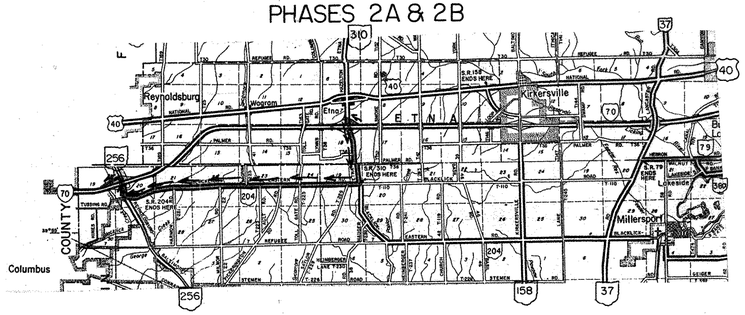
FAI-70-0.00
LIC-70-0.00

PHASES 1A & 1B



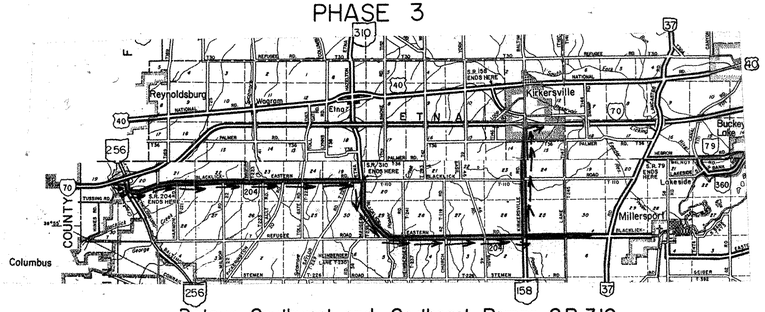
Detour Southeast Ramp Brice Rd. & Southeast Ramp S.R. 256
(To be detoured by State Forces)

PHASES 2A & 2B

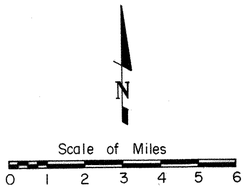


Detour Northeast Ramp S.R. 256
(To be detoured by State Forces)

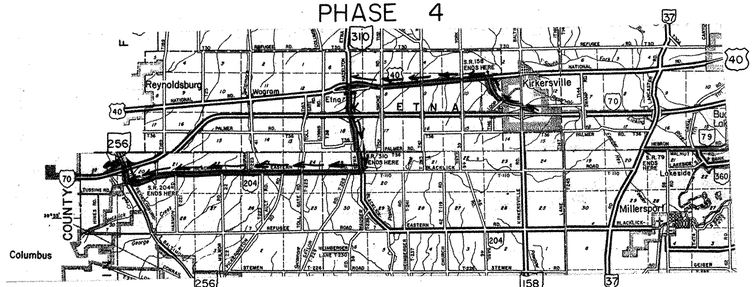
PHASE 3



Detour Southwest and Southeast Ramps S.R. 310
(To be detoured by State Forces)

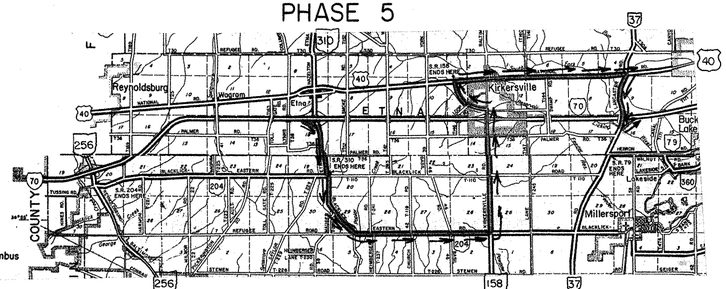


PHASE 4



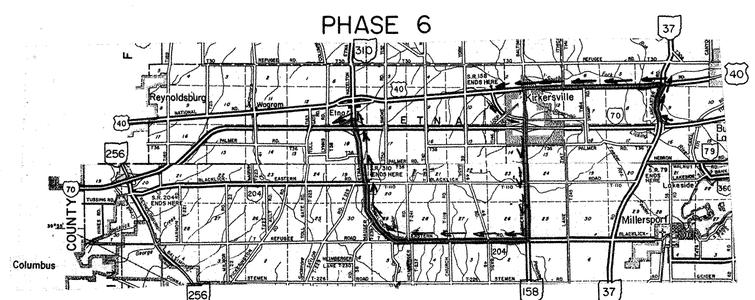
Detour Northwest and Northeast Ramps S.R. 310
(To be detoured by State Forces)

PHASE 5



Detour Southwest and Southeast Ramps S.R. 158
(To be detoured by State Forces)

PHASE 6



Detour Northwest and Northeast Ramps S.R. 158
(To be detoured by State Forces)

MAINTENANCE OF TRAFFIC

GENERAL

IN ADDITION TO THE REQUIREMENTS FOR MAINTAINING TRAFFIC AS INDICATED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND PERTINENT ITEMS OF SPECIFICATIONS, THE FOLLOWING REQUIREMENTS SHALL APPLY:

THE CONTRACTOR SHALL SUBMIT, IN WRITING A SCHEDULE OF OPERATIONS TO THE DISTRICT DEPUTY DIRECTOR AND RECEIVE WRITTEN APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

ALL WORK SHALL BE COMPLETED ON THE CLOSED SECTION, AS DESCRIBED IN THE SEQUENCE OF OPERATIONS, BEFORE IT IS OPENED TO TRAFFIC UNLESS OTHERWISE DIRECTED.

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO THAT NO WORK WHICH COULD DISRUPT THE NORMAL FLOW OF TRAFFIC SHALL BE PERFORMED ON THE PROJECT FROM NOVEMBER 15 TO APRIL 15. DURING THIS TIME TRAFFIC SHALL BE RETURNED TO BOTH EASTBOUND AND WESTBOUND LANES AND ALL TEMPORARY TRAFFIC CONTROL SHALL BE REMOVED AND PERMANENT MARKINGS IN PLACE. ALL TEMPORARY CROSSOVERS SHALL BE CLOSED AS DESCRIBED BELOW.

A WATCHMAN SHALL BE ON DUTY TWENTY-FOUR (24) HOURS PER DAY DURING THE TIME RESTRICTED TRAFFIC IS BEING MAINTAINED TO INSURE PROPER FUNCTIONING OF THE VARIOUS TRAFFIC CONTROL DEVICES AND TO EFFECT REPAIRS AS NECESSARY.

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO AS TO PREVENT ANY INTERFERENCE TO THE CONTINOUS FLOW OF TRAFFIC. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE APPROVED BY THE ENGINEER. EXISTING SPEED LIMIT SIGN LEGENDS IN AREAS WHERE TRAFFIC IS RESTRICTED SHALL BE COVERED AND REVISED SPEED LIMIT SIGNS SHALL BE INSTALLED. ANY OTHER CONFLICTING SIGNS SHALL BE COVERED AND TEMPORARY SIGNS ERECTED WHEN APPLICABLE. THE ENGINEER SHALL RECORD COVERED AND UNCOVERED SIGNS IN THE PROJECT DIARY. EXISTING SIGNS ON THE MAINLINE THAT ARE NOT APPLICABLE SHALL BE COVERED BY THE CONTRACTOR.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY. THE STANDARD DEVICE FOR CLOSING ANY LANES TO TRAFFIC SHALL BE WEIGHTED, PROPERLY REFLECTORIZED PLASTIC DRUMS. CONES MUST BE WEIGHTED TO INCREASE STABILITY BY DOUBLE STACKING, SANDBAGS OR AS APPROVED BY THE ENGINEER. METAL RINGS OF ANY TYPE OVER THE CONE WILL NOT BE PERMITTED.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR THE PHYSICAL CONSTRUCTION ONLY. THE INSTALLATON AND OPERATION OF ALL REQUIRED TRAFFIC CONTROL DEVICES SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATES TO THE ABOVE REQUIREMENTS PROVIDED THE INTENT OF THESE PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED IN EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE DIRECTOR.

ALL EXISTING CROSSOVERS WITHIN THE PROJECT LIMITS SHALL BE CLOSED TO TRAFFIC WHILE TWO-WAY TRAFFIC IS BEING MAINTAINED ON EITHER THE EASTBOUND OR WESTBOUND LANES OF I.R.-70. ALL PROPOSED CROSSOVERS WHEN NOT IN USE SHALL BE CLOSED TO TRAFFIC IN BOTH EASTBOUND AND WESTBOUND LANES. THE CONTRACTOR MAY USE CONCRETE BARRIER, SOIL WITH A MINIMUM HEIGHT OF 3' OR AN APPROVED METHOD TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN AND SUBSEQUENTLY REMOVE ALL BARRIERS, EMBANKMENT, ETC., NECESSARY TO CLOSE THESE CROSSOVERS. CONCRETE BARRIERS SHALL HAVE TAPERED ENDS.

THE CONTRACTOR SHALL NOTIFY THE DISTRICT TRAFFIC ENGINEER (TELE. 323-4400) AT LEAST 14 CALENDAR DAYS PRIOR TO CLOSING ANY RAMPS OR LOOPS TO TRAFFIC.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. THE LENGTH AND DURATION OF RESTRICTED TRAFFIC ZONES SHALL BE KEPT TO A MINIMUM CONSISTENT WITH THE SPECIFICATION REQUIREMENTS FOR PROTECTION OF COMPLETED COURSES AND AS OUTLINED IN THE SEQUENCE OF OPERATIONS.

FOR SAFETY PURPOSES NO EQUIPMENT OR MATERIAL SHALL BE PARKED OR STORED IN THE MEDIAN WITHIN THIRTY (30) FT. FROM THE EDGE OF PAVEMENT OF THE TRAVELING LANES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING AND THE INSTALLATION OF ALL PROPOSED SIGNS FOR PHASES 1-6 AND THEIR REMOVAL WHEN NO LONGER REQUIRED.

TEMPORARY FEATHERS, USING ITEMS 404 OR 402 WILL BE REQUIRED AT BRIDGES, RAMPS, LOOPS, CROSSOVERS, ENDS OF RUNS OR AT OTHER POINTS DESIGNATED BY THE ENGINEER. THEY SHALL BE INSTALLED ACCORDING TO BP-5 AND REMOVED WHEN NO LONGER REQUIRED. THE COST OF THESE SHALL BE INCLUDED IN THIS ITEM.

RAMPS AND BRIDGES SHALL BE COMPLETED IN CONJUNCTION WITH THOSE PARTICULAR AREAS CLOSED TO TRAFFIC BEFORE REOPENING LANES TO TRAFFIC, WITH THE EXCEPTION OF THOSE AREAS APPLICABLE TO MAINTAINING TRAFFIC FOR S.R.256. THESE AREAS SHALL BE COMPLETED AS HALF-WIDTH CONSTRUCTION.

PAYMENT FOR ALL OF THE ABOVE AND AS SHOWN ON SHEETS 15-21 SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE HIGHWAY. TO INSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISIFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

ITEM 625 — TEMPORARY LIGHTING

THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING FOR THE CROSSOVERS. THE APPROXIMATE STATION LIMITS FOR EACH CROSSOVER ARE AS FOLLOWS:

CROSSOVER LOCATIONS	FROM	TO
STA.605+20 Rt.(One pole located to the right of station 605+20 shown on sheet 15)		
STA.635+36.04	STA.631+72.09	STA.639+00.00
STA.257+96.51	STA.253+75.42	STA.262+17.60
STA.514+46.51	STA.510+25.42	STA.518+67.60
STA.561+00.00	STA.557+62.81	STA.564+37.19

TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOT-CANDLES AND SHALL BE INSTALLED BEFORE THE DESIGNATED AREAS ARE USED FOR THE MAINTENANCE OF TRAFFIC.

THE CONTRACTOR SHALL SUBMIT 4 SETS OF HIS PROPOSED DETAILED TEMPORARY LIGHTING PLANS TO THE DIRECTOR FOR REVIEW AND APPROVAL. THESE PLANS SHALL SHOW LOCATION OF POLES, LENGTH OF BRACKET ARMS, TYPE AND SIZE OF LUMINAIRES AND LAMPS, MOUNTING HEIGHT, POWER SOURCE, AND OTHER PERTINENT INFORMATION.

RECONDITIONED OR APPROVED USED MATERIALS MAY BE FURNISHED FOR THE TEMPORARY LIGHTING SYSTEM. CONSTRUCTION WILL BE WITH FIBERGLASS OR OTHER BREAKAWAY POLES AND UNDERGROUND ELECTRICAL FEEDS WITH PULL-AWAY CONNECTOR KITS (TYPE II AND III). MOUNTING HEIGHT FOR TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 27 FEET. THE TEMPORARY LIGHTING INSTALLATIONS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR WHEN NO LONGER NEEDED.

THE CONTRACTOR SHALL FURNISH ALL ELECTRICAL ENERGY, MATERIALS, LABOR AND EQUIPMENT NECESSARY TO INSTALL, OPERATE, MAINTAIN AND REMOVE THE TEMPORARY LIGHTING.

THE LUMP SUM BID PRICE FOR ITEM 625 - TEMPORARY LIGHTING SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE THE TEMPORARY LIGHTING AS SPECIFIED.

MAINTENANCE OF TRAFFIC

CALC. BY		FAI-70-0.00	OHIO	24
CHKD. BY		LIC-70-0.00	FHWA REGION 5	126
DATE				

SEQUENCE OF CONSTRUCTION:
PHASES 1-A & 1-B

(1) CONSTRUCT TEMPORARY CROSSOVER PAVEMENTS AT STA.635+36.04 & 257+96.51 AS SHOWN ON SHEETS 15 & 17. CONSTRUCT AND INSTALL TEMPORARY CONCRETE BARRIERS, TEMPORARY ASPHALT DIVIDERS, TRAFFIC CONTROL DEVICES, TEMPORARY LIGHTING AND SIGNS FOR PHASES 1-A & 1-B WHILE MAINTAINING EXISTING TRAFFIC. AFTER THE TEMPORARY DEVICES ARE IN PLACE MOVE I.R.70 E.B. TRAFFIC TO WESTBOUND LANES (ALTERNATE TWO-WAY TRAFFIC) WHILE E.B. S.R.256 TRAFFIC IS TO REMAIN ON EASTBOUND LANES (ONE-WAY TRAFFIC) S.R.256 TO E.B. I.R.70 RAMP "C" TRAFFIC TO DETOUR AS SHOWN ON SHEET 22. DETOUR BRICE ROAD AS SHOWN ON SHEET 22.

(2) REMOVE EXISTING PORTIONS OF CENTER LANE AND ALL LEFT PASSING LANE PAVEMENT FOR THE THREE-LANE SEGMENT, AND REMOVE ALL EXISTING PAVEMENT EAST OF STA.67+00.

(3) DEVELOPE NEW DRAINAGE AND PLACE ITEM 301 AND 846 INTERMEDIATE COURSE AND COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION AND OTHER DETAILS.

(4) UPON COMPLETION OF STEP (3), MOVE S.R.256 TRAFFIC TO PASSING LANE MAINTAINING EGRESS TO S.R.256 AS APPROVED BY THE ENGINEER TO FACILITATE REMOVAL AND DEVELOPMENT OF RIGHT DRIVING LANE AND REMAINING PORTION OF CENTERLANE PAVEMENT. THE CONTRACTOR MAY ELECT TO PERFORM THIS PORTION PRIOR TO COMPLETION OF TWO-LANE SEGMENT. HOWEVER THE CONTRACTOR SHALL PREVENT ANY AND ALL TRAFFIC FROM ENTERING THAT PORTION OF I.R.70 EASTERLY OF THE I.R.70 AND S.R.256 INTERCHANGE.

(5) CONSTRUCT TEMPORARY ASPHALT DIVIDER AND RELATED WORK FOR PHASE 2-A AND 2-B AS SHOWN ON SHEETS 16 & 17.

PHASES 2-A & 2-B

(1) REALIGN TEMPORARY TRAFFIC CONTROL DEVICES TO FACILITATE MOVEMENT OF I.R.70 W.B. TRAFFIC TO THE EASTBOUND LANES, AND THEN MOVE I.R.70 W.B TRAFFIC TO EASTBOUND LANES (ALTERNATE TWO-WAY TRAFFIC) WHILE S.R.256 W.B. TRAFFIC REMAINS ON WESTBOUND RIGHT LANES (ONE-WAY TRAFFIC). I.R.70 W.B. TO S.R.256 RAMP "B" TRAFFIC TO EXIT AT S.R.310 AS SHOWN ON SHEET 22.

(2) REMOVE A PORTION OF CENTER LANE AND ALL OF LEFT PASSING LANE PAVEMENT OF THE THREE-LANE SEGMENT, AND REMOVE ALL PAVEMENT EAST OF STA.57+00±.

(3) DEVELOPE NEW DRAINAGE AND PLACE ITEM 301 AND 846 COURSES AND COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION AND OTHER DETAILS.

(4) UPON COMPLETION OF STEP (3), MOVE S.R.256 TRAFFIC TO LEFT PASSING LANE MAINTAINING INGRESS TO I.R.70 W.B. AS APPROVED BY THE ENGINEER TO FACILITATE REMOVAL AND DEVELOPMENT OF THE RIGHT DRIVING LANE PAVEMENT.

(5) REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES INCLUDING CROSSOVER AT STA.635+36.04.

(6) PLACE FINAL ITEM 846 SURFACE COURSE AND FINAL 1 1/4" ITEM 617 COMPACTED AGGREGATE IN THE EASTBOUND LANE WITH TRAFFIC MAINTAINED.

PHASES 3 & 4

(1) CONSTRUCT TEMPORARY CROSSOVER PAVEMENTS AT STA.514+46.51 AS SHOWN ON SHEETS 18 & 19. CONSTRUCT AND INSTALL TEMPORARY CONCRETE BARRIERS, TEMPORARY ASPHALT DIVIDERS, AND ALL TRAFFIC CONTROL DEVICES, TEMPORARY LIGHTING AND SIGNS FOR PHASES 3 & 4 WHILE MAINTAINING EXISTING TRAFFIC. AFTER THE TEMPORARY TRAFFIC CONTROL DEVICES ARE IN PLACE MOVE I.R.70 E.B. TRAFFIC TO WESTBOUND LANES (ALTERNATE TWO-WAY TRAFFIC). DURING PHASE 3 I.R.70 AND S.R.310 INTERCHANGE'S RAMP "D" AND RAMP "C" SHALL BE CLOSED AND S.R.310 TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 22.

(2) REMOVE EXISTING I.R.70 E.B. PAVEMENT AND REPLACE WITH NEW DRAINAGE AND PLACE ITEM 301 AND 846 INTERMEDIATE COURSE AND COMLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION AND OTHER DETAILS.

(3) UPON COMPLETION OF STEP (2), REALIGN TEMPORARY TRAFFIC CONTROL DEVICES TO FACILITATE MOVEMENT OF I.R.70 W.B. TRAFFIC TO THE EASTBOUND LANES AND THEN MOVE I.R.70 W.B. TRAFFIC TO EASTBOUND LANES (ALTERNATE TWO-WAY TRAFFIC). DURING PHASE 4 I.R.70 & S.R.310 INTERCHANGE RAMP "A" AND RAMP "B" SHALL BE CLOSED AND S.R.310 TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 22.

(4) REMOVE EXISTING I.R.70 W.B. PAVEMENT AND REPLACE WITH NEW DRAINAGE AND PLACE ITEM 301 AND ITEM 846 COURSES AND COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION AND OTHER DETAILS.

(5) UPON COMPLETION, REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND CROSSOVER AT STA.257+96.51.

(6) PLACE FINAL ITEM 846 SURFACE COURSE AND FINAL 1 1/4" ITEM 617 COMPACTED AGGREGATE IN THE EASTBOUND LANE WITH TRAFFIC MAINTAINED.

PHASES 5 & 6

(1) CONSTRUCT TEMPORARY CROSSOVER PAVEMENTS AT STA.561+00.00 EASTERLY OF S.R.158. CONSTRUCT AND INSTALL TEMPORARY CONCRETE BARRIERS, TEMPORARY ASPHALT DIVIDERS, ALL TRAFFIC CONTROL DEVICES, TEMPORARY LIGHTING, AND SIGNS FOR PHASES 5 & 6 WHILE MAINTAINING EXISTING TRAFFIC. AFTER THE TEMPORARY TRAFFIC CONTROL DEVICES ARE IN PLACE MOVE I.R.70 E.B. TRAFFIC TO WESTBOUND LANES (ALTERNATE TWO-WAY TRAFFIC). DURING PHASE 5, I.R.70 & S.R.158 INTERCHANGE S.W. RAMP AND S.E. RAMP SHALL BE CLOSED AND S.R.158 TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 22.

(2) REMOVE EXISTING I.R.70 E.B. PAVEMENT AND REPLACE WITH NEW DRAINAGE AND PLACE ITEM 301 AND 846 COURSES AND COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION AND OTHER DETAILS.

(3) UPON COMPLETION OF STEP (2) REALIGN TEMPORARY TRAFFIC CONTROL DEVICES TO FACILITATE MOVEMENT OF I.R.70 W.B. TRAFFIC TO EASTBOUND LANES AND THEN MOVE I.R.70 W.B. TRAFFIC TO EASTBOUND LANES (ALTERNATE TWO-WAY TRAFFIC). DURING PHASE 6, I.R.70 & S.R.158 INTERCHANGE N.W. RAMP AND N.E. RAMP SHALL BE CLOSED AND S.R.158 TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 22.

(4) REMOVE EXISTING I.R.70 W.B. PAVEMENT AND REPLACE WITH NEW DRAINAGE AND PLACE ITEM 301 AND ITEM 846 COURSES AND COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION AND OTHER DETAILS.

(5) UPON COMPLETION REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES INCLUDING CROSSOVERS AT STA.514+46.51 AND STA.561+00.00.

(6) PLACE FINAL ITEM 846 SURFACE COURSE AND FINAL 1 1/4" ITEM 617 COMPACTED AGGREGATE IN THE EASTBOUND LANE WITH TRAFFIC MAINTAINED.

GENERAL:

AT NO TIME SHALL ITEM 617 COMPACTED AGGREGATE BE CONSTRUCTED ABOVE THE EXISTING ASPHALT SURFACE WHEN MAINTAINING TRAFFIC IN THE EASTBOUND LANES.

EGRESS AND INGRESS TO CONSTRUCTION AREA:

EGRESS AND INGRESS BY ALL VEHICULAR TRAFFIC ASSOCIATED WITH THE ACTUAL CONSTRUCTION OF EACH OF THE PARTICULAR PHASES SHALL BE RESTRICTED TO THE USE OF EXISTING RAMPS, AND ANY USE OF THE MEDIAN AREA SHALL BE PROHIBITED UNLESS OTHERWISE APPROVED BY THE ENGINEER.

EXISTING RAISED PAVEMENT MARKERS:

DURING PHASES 1-A & 2-A FROM STA. 631+72.09 TO STA. 641+09.49 ALL EXISTING LANE LINE PRISMATIC RETRO-REFLECTORS SHALL BE REMOVED FOR MAINTAINING TRAFFIC TO AND FROM S.R. 256. AFTER TRAFFIC HAS BEEN RETURNED TO ITS ORIGINAL PATTERN THE PRISMATIC RETRO-REFLECTORS SHALL BE REPLACED.
A QUANTITY HAS BEEN INCLUDED ON SHEET 30-B TO PERFORM THE WORK AS DESCRIBED ABOVE.

614 TEMPORARY RAISED PAVEMENT MARKERS

CALC. BY D.M. DATE 2-29-88 CHECK. BY RM DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING, INSTALLING, MAINTAINING, AND SUBSEQUENTLY REMOVING TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S). THE TRPM'S SHALL BE YELLOW OR WHITE, AS DESCRIBED IN THE PLAN.

MATERIAL
ALL UNITS SHALL BE OF SUFFICIENT STRENGTH AND PROPERLY SHAPED SO AS NOT TO BE DISLODGED OR BROKEN, OR THE REFLECTOR DISLODGED OR BROKEN, OR THE REFLECTOR DISLODGED OR DAMAGED BY IMPACTS FROM VEHICLES TIRES, INCLUDING THOSE OF HIGH PRESSURE TRUCK TIRES LOADED TO 4500 POUNDS.

RETROREFLECTORS SHALL BE PROVIDED IN ONE OR TWO DIRECTIONS ON EACH UNIT AS REQUIRED BY THE USAGE AND SHALL RETURN WHITE OR YELLOW LIGHT AS IS APPROPRIATED FOR THE APPLICATION.

THE REFLECTOR SHALL HAVE AN EFFECTIVE AREA OF 0.35 SQUARE INCH FOR TYPE A OR 3.0 SQUARE INCH FOR TYPE B. ITS BRIGHTNESS OR SPECIFIC INTENSITY (WHEN TESTED AT 0.2 DEGREE ANGLE OF OBSERVATION AND THE FOLLOWING ANGLES OF INCIDENCE) SHALL MEET OR EXCEED THE FOLLOWING:

SPECIFIC INTENSITY

INCIDENCE ANGLE (DEGREES)	TYPE A WHITE	TYPE A YELLOW
0	1.0	0.6
20	0.4	0.24
45	–	–

	TYPE B WHITE	TYPE B YELLOW
0	3.0	1.8
20	1.2	0.72
45	0.3	0.2

ANGLE OF INCIDENCE FORMED BY A RAY FROM LIGHT SOURCE TO THE MARKER AND THE NORMAL TO THE LEADING EDGE OF THE MARKER FACE (ALSO HORIZONTAL ENTRANCE ANGLE).

ANGLE OF OBSERVATION FORMED BY A RAY FROM LIGHT SOURCE TO THE MARKER AND THE RETURNED RAY FROM THE MARKER TO THE MEASURING RECEPTOR.

SPECIFIC INTENSITY IS THE MEAN CANDLEPOWER OF THE REFLECTED LIGHT (AT GIVEN INCIDENCE AND DIVERGENCE ANGLES) FOR EACH FOOT-CANDLE AT THE REFLECTOR (ON A PLANE PERPENDICULAR TO THE INCIDENT LIGHT).

TYPE A UNITS ARE INTENDED TO PROVIDE HIGH VISIBILITY BOTH AT NIGHT AND DURING DAYLIGHT. THEIR DAY TIME VISIBILITY SHALL BE ASSURED BY SIZE, SHAPE AND COLOR AS FOLLOWS:

1) THE UNITS SHALL BE A HIGH VISIBILITY YELLOW OR WHITE COLOR WHICH WILL NOT DEGRADE SUBSTANTIALLY DUE TO TRAFFIC WEAR AND WHICH WILL MATCH THE COLOR OF THE REFLECTOR.

2) WHEN VIEWED FROM ABOVE, THE UNITS SHALL HAVE A VISIBLE AREA OF NOT LESS THAN 14 SQUARE INCHES.

3) WHEN VIEWED FROM THE FRONT, PARALLEL TO THE PAVEMENT, AS FROM APPROACHING TRAFFIC, THE UNIT SHALL HAVE A WIDTH OF APPROXIMATELY 4 INCHES AND A VISIBLE AREA OF NOT LESS THAN 1.5 SQUARE INCHES.

TYPE B UNITS ARE INTENDED TO PROVIDE HIGH VISIBILITY AT NIGHT BY RETRO-REFLECTING AUTOMOTIVE HEADLIGHT BACK TO THE DRIVER.

INSTALLATION: THEY SHALL BE ATTACHED TO CLEAN, DRY PAVEMENT BY A BUTYL ADHESIVE PAD, A BITUMINOUS ADHESIVE OR OTHER CONSTRUCTION GRADE ADHESIVES (SUCH AS FRANKLIN PANEL AND METAL ADHESIVE) SUITABLE TO ANCHOR THE UNIT UNDER THE ABOVE CONDITIONS. WHEN IT IS NECESSARY TO ATTACH UNITS TO NEW CONCRETE WITH CURING COMPOUND REMAINING, THE CURING COMPOUND MEMBRANE SHALL BE REMOVED BY SANDBLASTING OR OTHER MECHANICAL CLEANING METHOD. THEY SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR SHALL IMMEDIATELY REPLACE, AT HIS COST, ANY UNITS WHICH FAIL (BROKEN HOUSING, HOUSING WORN TO THE EXTENT THAT DAYTIME VISIBILITY IS SIGNIFICANTLY DIMINISHED OR OF AN UNACCEPTABLE COLOR, DETACHED OR BROKEN REFLECTOR, HOUSING DETACHED FROM ADHESIVE).

TRPM'S ARE LIKELY TO BE REMOVED BY SNOW PLOWING OPERATIONS, THUS THEY ARE NOT CONSIDERED SUITABLE FOR USE DURING THE PERIOD FROM OCTOBER 15 UNTIL APRIL 30. THE CONTRACTOR IS ADVISED TO SCHEDULE HIS WORK AND/OR THE USE OF THESE DEVICES TO AVOID THIS PERIOD. SHOULD THE CONTRACTOR CHOOSE TO USE TRPM'S DURING THIS PERIOD AND THEY ARE SUBSEQUENTLY REMOVED OR DESTROYED BY SNOW AND ICE CONTROL ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY, AT HIS COST, PROVIDE A SUBSTITUTE TRAFFIC GUIDANCE SYSTEM EFFECTIVE DURING LIGHT AND DARK AND WHICH IS ACCEPTABLE TO THE ENGINEER.

THE UNITS SHALL BE PLACED ACCURATELY TO DEPICT STRAIGHT OR UNIFORMLY CURVING LINES. WHEN USED TO SUPPLEMENT TEMPORARY PAVEMENT MARKINGS, THEY MAY BE PLACED ON OR IMMEDIATELY ADJACENT TO THE PAVEMENT MARKING. LOCATIONS SHALL BE ADJUSTED UP TO ONE FOOT LONGITUDINALLY OR SIX INCHES LATERALLY TO AVOID PLACEMENT ON JOINTS, CRACKED OR DETERIORATED PAVEMENT. THEY SHALL NOT BE PLACED DIRECTLY ON PAVEMENT MARKINGS IF THIS WILL DETRACT FROM THEIR ABILITY TO REMAIN ATTACHED TO THE PAVEMENT.

APPLICATION
1) WHEN REQUIRED TO SUPPLEMENT PAVEMENT MARKING; THEY SHALL BE PLACED AS FOLLOWS:

LINE	TYPE	SPACING
EDGE LINE	A OR B	20' C/C
LANE LINE	A OR B	40' C/C*
CENTER LINE (SINGLE/BROKEN)	A OR B	40' C/C *
CENTER LINE (DOUBLE/SOLID)	A OR B	2 UNITS SIDE BY SIDE 4 INCHES APART 20' C/C
CHANNELIZING LINE (INCLUDES EXIT GORE NOSE)	A OR B	10' C/C

* CENTERED IN GAP

2) WHEN USED TO SIMULATE (REPLACE) PAVEMENT MARKING THEY SHALL BE PLACED AS FOLLOWS:

LINE	TYPE	SPACING
EDGE LINE	A	5' C/C
LANE LINE	A	4@3.33' C/C 30' GAP (40' CYCLE)
CENTER LINE (DOUBLE SOLID)	A	2 UNITS SIDE BY SIDE 5' C/C
CENTER LINE (SINGLE BROKEN)	A	4@3.33' C/C 30' GAP (40' CYCLE)
CHANNELIZING LINE (INCLUDES EXIT GORE NOSE)	A	5' C/C
EDGE LINE (TWO COLOR) (WHITE/YELLOW)	A	BACK TO BACK 5' C/C

YELLOW TRPM'S USED TO SEPARATE OPPOSITE FLOWS OF TRAFFIC (CENTER LINES) SHALL INCLUDE REFLECTIONS FOR BOTH DIRECTIONS. ALL OTHER YELLOW TRPM'S AND WHITE TRPM'S SHALL PROVIDE RETROREFLECTIVITY FOR ONE DIRECTION.

REMOVAL
REMOVAL SHALL BE ACCOMPLISHED IN A MANNER THAT LITTLE OR NONE OF THE ADHESIVE REMAINS ON THE PAVEMENT AND PERMANENT PAVEMENT SURFACES SHALL NOT BE SCARRED, BROKEN OR ROUGHENED SIGNIFICANTLY.

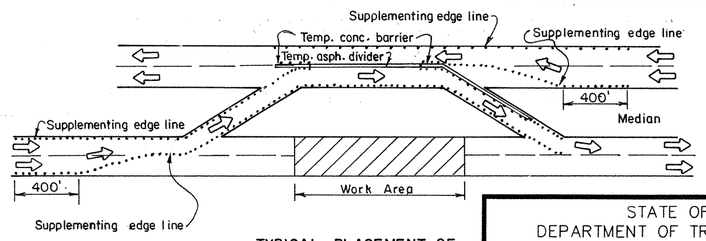
PAYMENT
BASIS OF PAYMENT SHALL BE AT THE CONTRACT UNIT PRICE PER EACH TRPM AND SHALL INCLUDE ALL LABOR, EQUIPMENT, HARDWARE AND INCIDENTALS REQUIRED TO PERFORM THE WORK. IT SHALL ALSO INCLUDE REPLACEMENT AT NO ADDITIONAL COST OF ALL TRPM'S WHICH, IN THE JUDGEMENT OF THE ENGINEER, FAIL FOR ANY REASON, EXCEPT DUE TO FAILURE OF THE PAVEMENT TO WHICH THEY ARE ATTACHED.

ITEM	UNIT	DESCRIPTION
614	EACH	TEMPORARY RAISED PAVEMENT MARKERS

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE:

ITEM 614 17,907 EACH TEMPORARY RAISED PAVEMENT MARKERS, TYPE B.

STATIONING (FROM-TO) (SIDE)	LIN. FT.	SPACING	TYPE B Y		TYPE B W	TYPE B Y	TYPE B W	SPACING	LIN. FT.	STATIONING (FROM-TO) (SIDE)
PHASE 1-A & 1-B 0+00 – 7+32.40	732.40									PHASE 5
639+00 - 641+09.49	209.49								849.16	0+00 – 8+49.16
0+00 – 143+21.06	14321.06								21530.09	518+67.60-733+97.69
250+00 - 253+75.42	375.42								762.81	550+00 – 557+62.81
0+00 - 8+49.16	849.16								677.92	0+00 – 677.92
TOTAL	16487.53	20'			825		1191	20'	23819.98	TOTAL
0+00 - 7+32.40+221'	953.40								1070.16	0+00 - 8+49.16+221'
221'+0+00 – 8+49.16	1070.16								1070.16	221'+0+00 - 8+49.16
TOTAL	2023.56	20'	102			107		20'	2140.32	TOTAL
PHASE 2-A & 2-B (SAME AS PHASE 1-A & 1-B)			102		825	107	1191			PHASE 6 (SAME AS PHASE 5)
										Extra as shown below
PHASE 3 0+00 – 8+49.16	849.16					416	1434	20	8310	★ Phase 1-A & B
262+17.60 – 510+25.42	2480.782					322	1045	20	20903 6440	Phase 2-A & B
0+00 – 8+49.16	849.16					348	1567	20'	6955 31342	Phase 3
TOTAL	26506.14	20'			1326	348	1567	20'	6955 31342	Phase 4
0+00 - 8+49.16+221'	1070.16					340	1432	20'	6787 28638	Phase 5
221'+0+00 - 8+49.16	1070.16					340	1432	20'	6787 28638	Phase 6
TOTAL	2140.32	20'	107							
PHASE 4 (SAME AS PHASE 3)			107		1326					
						2746	15161			SUBTOTAL
						17907				TOTAL



TYPICAL PLACEMENT OF TEMPORARY RAISED PAV'T. MARKERS

See sheets 15 & 16

★ E.L. 24,160' ÷ 20 = 1208 Each
L.L. 675' ÷ 40 = 17 Each
C.L. 2090' ÷ 10 = 209 Each
Total 1434 Each

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

614 TEMPORARY RAISED PAVEMENT MARKERS

DESIGNED	DRAWN	CHECKED	DATE	REVISED
			5-12-87	

614 BARRIER REFLECTORS

CALC. BY D.M
DATE 2-29-88
CHECK. BY RWM
DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

26/126

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING BARRIER REFLECTORS (TYPE A) ON GALVANIZED STEEL GUARDRAIL AND/OR BARRIER REFLECTORS (TYPE B) ON CONCRETE BARRIERS IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

MATERIAL

THE BARRIER REFLECTOR SHALL BE AS MANUFACTURED BY STIMSONITE, REFLEXITE OR AN APPROVED FUNCTIONAL EQUIVALENT AS DESCRIBED BELOW:

STIMSONITE– MODEL 965 (WHITE & YELLOW) OR
REFLEXITE– MODEL 650 (WHITE & YELLOW)

THE ADHESIVE SHALL BE FRANKLIN PANEL AND METAL FRAMING ADHESIVE AS MANUFACTURED BY FRANKLIN CHEMICAL INDUSTRIES, PR–365 AS MANUFACTURED BY PRODUCTS RESEARCH AND CHEMICAL CORPORATION OR AN APPROVED EQUAL.

ALL ADHESIVES SHALL HAVE A SHELF LIFE OF 6 MONTHS AT 75 DEGREES F STORAGE MINIMUM GUARANTEED.

LAYOUT

THE CONTRACTOR SHALL LAYOUT ALL LOCATIONS TO ASSURE PROPER PLACEMENT. THE LAYOUT SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATIONS ARE STARTED. THE LAYOUT SHALL BE INCIDENTAL TO THE INSTALLATION OPERATION.

INSTALLATION

1) ON CONCRETE BARRIERS THE HEIGHT OF THE TOP OF THE REFLECTOR SHALL BE 26 INCHES ABOVE THE NEAR EDGE OF PAVEMENT, BUT IN NO CASE SHALL THE TOP OF THE REFLECTOR BE LESS THAN 3 INCHES BELOW THE TOP OF THE CONCRETE BARRIER. ATTACHMENT SHALL BE BY THE ABOVE REFERENCED ADHESIVE AND APPLIED PER MANUFACTURER'S RECOMMENDATION.

2) GUARDRAIL REFLECTORS SHALL BE INSTALLED WITHIN THE CONCAVE SURFACE OF THE GUARDRAIL. ATTACHMENT MAY BE BY BRACKET WHICH FITS UNDER THE HEAD OF THE CENTER GUARDRAIL BOLT OR BY THE ABOVE REFERENCED ADHESIVE AND APPLIED PER MANUFACTURER'S RECOMMENDATION.

3) THE ABOVE REFERENCED ADHESIVE SHALL BE FLASHED WHEN APPLIED TO ACHIEVE MAXIMUM BONDING STRENGTH.

4) WHEN MOUNTED ON A FLAT SURFACE, THE REFLECTOR SHOULD BE TILTED UPWARD FROM THE VERTICAL OR PLUMB POSITION 2–3 DEGREES TO FACILITATE "RAIN WASHING" OF THE REFLECTOR FACE.

5) TWO–LANE HIGHWAY – WHITE UNITS SHALL BE PLACED ON THE RIGHT SIDE OF APPROACHING TRAFFIC.

FOUR–LANE DIVIDED HIGHWAY – WHITE UNITS SHALL BE PLACED ON THE RIGHT SIDE OF APPROACHING TRAFFIC AND YELLOW ON THE LEFT.

BASIS OF PAYMENT

BASIS OF PAYMENT SHALL BE AT THE UNIT PRICE BID FOR EACH REFLECTOR AND SHALL INCLUDE ALL LABOR, EQUIPMENT, HARDWARE AND INCIDENTALS REQUIRED TO PERFORM THE WORK.

ITEM	UNIT	DESCRIPTION
614	EACH	BARRIER REFLECTOR, TYPE A
614	EACH	BARRIER REFLECTOR, TYPE B

A: BARR–REF

	SPACING	TYPE A		TYPE B						REMARKS
		W	Y	W	Y					
1380'x2(two sides)see sht. 13 Conc. Barrier	25				110					
200' Conc. Barrier(see sht.22)	25				8					
3400' Conc. Barrier(see sht.28)	25				136					
15,975'(Guardrail)	50	320								14975'+500'+500'=15,975' (Placed on outside guardrail shown on sheets 9 & 10)
3,400'(Guardrail)	50		68							175'+425'+650'+2150'=3400' (Placed on median guardrail shown on sheet 10)
2,497'(Conc. Barrier)	25			100						Placed on concrete barrier as shown on sheet 7-A
TOTALS		320	68	100	254					
		388		354						

The following quantity has been carried to the General Summary for the above purpose.

Item 614 Barrier Reflectors, Type A 388 Each
Item 614 Barrier Reflectors Type B 354 Each

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

614 BARRIER REFLECTORS

DESIGNED	DRAWN	CHECKED	DATE	REVISED
			5-12-87	

GENERAL NOTES

CALC. BY D.M DATE 2-29-88
CHKD. BY R.M DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

FIELD OFFICE

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 800 SQ. FT. OF FLOOR SPACE. PAYMENT SHALL BE AT THE LUMP SUM PRICE BID FOR ITEM 619, FIELD OFFICE.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ITEM 407 TACK COAT, AS PER PLAN

THE RATE OF APPLICATION OF 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. WHEN COVER AGGREGATE IS NEEDED, IT SHALL BE USED AS DIRECTED BY THE ENGINEER, AND IT SHALL BE CONSIDERED INCIDENTAL TO, AND BE INCLUDED FOR PAYMENT IN: ITEM 407 TACK COAT, AS PER PLAN.
PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF .10 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 659, SEEDING AND MULCHING

THE FOLLOWING QUANTITY WAS USED TO ESTIMATE THE AREAS FOR SEEDING AND MULCHING. THE FINAL AREA SHALL BE DETERMINED BY THE PROJECT ENGINEER.
420,530 SQ.YD.
THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 659 SEEDING AND MULCHING (420,530+18,000-sheet 6)	438,530 SQ.YD.
ITEM 659 COMMERCIAL FERTILIZER	39.47 TON
ITEM 659 AGRICULTURAL LIMING	197.34 TON

CONSTRUCTION PLAN

REFERENCE IS HEREBY MADE TO THE FOLLOWING DESIGNATED PLAN FOR FORMER CONSTRUCTION PROJECTS, PORTIONS OF WHICH COVER AREAS INCLUDED IN THIS PROPOSED IMPROVEMENT.

FAI-70-0.00, LIC-70-0.00
LIC-70-0.33
LIC-70-0.33
LIC-70-5.12 - 8.67

COPIES OF THESE PLANS ARE ON FILE EITHER AT THE DISTRICT 5 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION OR AT THE OFFICE OF THE ADMINISTRATOR OF CONTRACT SALES COLUMBUS, OHIO.

ITEM SPECIAL PARTIAL DEPTH PAVEMENT JOINT REPAIR:

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF ALL LOOSE AND UNSOUND PAVEMENT, ANYWHERE ON THE SURFACE, AND ITS REPLACEMENT WITH ASPHALT CONCRETE AS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH A NOTE IN THE PROPOSAL. THE UNITS TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF SQUARE YARDS PATCHED, AS MEASURED AT PAVEMENT SURFACE. THE MAXIMUM DEPTH OF REPAIR SHALL BE FOUR OND ONE-HALF INCHES.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSES.
ITEM SPECIAL-PARTIAL DEPTH PAVEMENT JOINT REPAIR 2000 SQ.YD.
NOTE: THE ABOVE QUANTITY IS TO BE USED ON THAT PORTION OF THE EXISTING RAMPS THAT REQUIRE RESURFACING ONLY.

WATERING AND MOWING PERMANENT SEEDED AREAS

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR THE PERMANENT SEEDED AREAS, AS PER 659.09:

659	WATER	500	M. GAL.
659	MOWING	1000	M. SQ. FT.

ITEM 202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE

THE RAISED PAVEMENT MARKERS REMOVED ON THIS JOB SHALL BE STORED ON THE JOB SITE, AND REMOVED BY STATE FORCES.
THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM 202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE 2176 EACH

UNSUITABLE SUBGRADE

DUE TO POOR SOILS IN THE AREA OF THE UNDERPASSES AN ESTIMATED QUANTITY OF ITEM 203 EXCAVATION AND ITEM 203 EMBANKMENT USING GRANULAR MATERIAL AS PER 203.02 HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

THIS IS A CONTINGENCY QUANTITY AND THE ENGINEER RESERVES THE RIGHT TO NON-PERFORM UP TO 100% OF THIS QUANTITY.

ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	10,000 CU.YD.
ITEM 203 EMBANKMENT *USING GRANULAR MATERIAL*	12,000 CU.YD.

EXISTING PAVEMENT MARKINGS

ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED AND REPLACED WITH APPROPRIATE MARKINGS. ALL MARKINGS WILL BE MAINTAINED DURING THE CROSSOVER. THE TEMPORARY MARKINGS SHALL BE REMOVED IN ACCORDANCE WITH 621.134 AND ALL NECESSARY MARKINGS SHALL BE RETURNED TO THE FINISHED PORTION.

ITEM 606 GUARDRAIL POSTS INSTALLED

THIS ITEM SHALL INCLUDE INSTALLING ADDITIONAL POSTS AS PER GR-6A. THE ADDITIONAL POSTS SHALL BE SPACED AT 3'-2 1/2" BETWEEN THE 6'-3" SPACING AS SHOWN ON GR-6A. THE INSTALLED GUARDRAIL POSTS SHALL INCLUDE SPACER BLOCKS, BACK-UP PLATES, ALL NECESSARY HARDWARE, LABOR AND EQUIPMENT TO COMPLETE THIS ITEM.
BASIS FOR PAYMENT - PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR:

ITEM	UNIT	DESCRIPTION
606	EACH	GUARDRAIL POSTS INSTALLED

COOPERATION BETWEEN CONTRACTORS

THE STATE MAY HAVE A CONTRACT TO RESURFACE THE ROADWAY AND REHABILITATE THE CONCRETE ROADWAY MEDIAN CONCURRENTLY WITH THIS PROJECT. IT IS PERTINENT THAT THIS CONTRACTOR COOPERATE FULLY WITH THE BRIDGE CONTRACTOR AS OUTLINED IN SECTION 105.07 OF THE SPECIFICATIONS.

(STRUCTURE PROTECTION) ITEM 622 TEMPORARY CONCRETE BARRIER

THE CONTRACTOR SHALL INSTALL A TEMPORARY CONCRETE BARRIER, AS PER STANDARD DRAWING MC-9A, AT THE MEDIAN SIDE OF STRUCTURES. THE CONCRETE BARRIER SHALL BE PLACED AT THE DIRECTION OF THE PROJECT ENGINEER. THE APPROACH END OF THE TEMPORARY CONCRETE BARRIER SHALL HAVE A TAPERED END SECTION. THIS QUANTITY SHALL ALSO INCLUDE REMOVING AND REUSING AND TEMPORARY CONCRETE BARRIER AT UNPROTECTED BRIDGE PARAPETS WHEN MAINTAINING TRAFFIC DURING PHASES I-4 AFTER THE PROJECT HAS BEEN COMPLETED THE TEMPORARY CONCRETE BARRIER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED BY HIM.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM 622 TEMPORARY CONCRETE BARRIER, 200 LIN.FT. (A minimum of 100 lin.ft/struct.)

ITEM SPECIAL, LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF ITEM 614, A UNIFORMED OFF DUTY STATE HIGHWAY PATROLMAN AND OFFICIAL PATROL CAR WITH EMERGENCY FLASHERS OPERATING, SHALL BE PROVIDED DURING ANY INTERMITTENT FIRST DAY SET-UP PERIOD AND LAST DAY TEARDOWN PERIOD. THIS REQUIREMENT DOES NOT PRECLUDE THE CONTRACTORS USE OF STATE HIGHWAY PATROLMAN FOR OTHER PURPOSES IN THE PROJECT AREA. HOWEVER WHERE SUCH USAGE IS AT THE OPTION OF THE CONTRACTOR, PAYMENT FOR THE STATE HIGHWAY PATROLMAN'S SERVICES INVOLVED SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC. INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTORS FOR SPECIAL DUTY PATROL SERVICES MAY BE OBTAINED BY CONTACTING THE OHIO HIGHWAY PATROL, 660 EAST MAIN STREET, COLUMBUS, OHIO, TELEPHONE 466-2660.
THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.
ITEM SPECIAL LAW ENFORCEMENT OFFICER WITH PATROL CAR 600 HOURS

UTILITY OWNERSHIP

THE FOLLOWING UTILITY IS LOCATED WITHIN THE LIMITS OF THIS PROJECT.
THE UTILITY AS SHOWN ON THE PLAN SHEETS IS OWNED BY THE STATE OF OHIO, POWER IS SUPPLIED BY COLUMBUS SOUTHERN POWER AS SHOWN ON SHEET 70.

OWNER:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT FIVE (TRAFFIC ENGINEER)
9600 JACKSONTOWN RD. 43030
PHONE: (614)-323-4400

GENERAL NOTES

CALC. BY D.M. DATE 2-29-88
CHKD. BY R.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT		28
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FAI-70-0.00
LIC-70-0.00

ITEM 622 TEMPORARY CONCRETE BARRIER: (TRAFFIC CONTROL)

THE CONTRACTOR SHALL INSTALL A TEMPORARY CONCRETE BARRIER, AS PER STANDARD DRAWING MC-9A, AS SHOWN ON SHEETS 15

AFTER THE PROJECT HAS BEEN COMPLETED THE TEMPORARY CONCRETE BARRIER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED BY HIM.
THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM 622 TEMPORARY CONCRETE BARRIER 3400 LIN. FT.

STA. 605+20 E.B. TO STA. 637+00 E.B.	3,180 LIN. FT.
STA. 605+20 E.B. TO STA. 607+40 E.B.	220 LIN. FT.
	3,400 LIN. FT.

CONNECTION TO EXISTING PIPE:

WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL:

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER, FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

207	TEMPORARY SEEDING AND MULCHING	87,700	SQ. YD.
207	STRAW OR HAY BALES	350	EACH
659	WATER	200	M. GAL.

ITEM 203, EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION, FINAL MEASUREMENT:

PAYMENT FOR "ITEM 203, EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION" SHALL BE BASED ON CUBIC YARDS OF MATERIAL EXCAVATED WITHIN THOSE LIMITS AS ESTABLISHED BY THE ELEVATIONS FOR FINISHED PAVEMENT, AS PER PLAN PAVEMENT ELEVATION TABLES, FOR THE UPPER LIMITS AND BY ACTUAL FIELD CHECK MEASUREMENTS RELATIVE TO THE REQUIREMENTS FOR DEVELOPMENT OF THE NEW PAVEMENT STRUCTURE FOR BOTH THE HORIZONTAL AND LOWER LIMITS.
THE FINAL QUANTITY OF EXCAVATED MATERIAL, HOWEVER, SHALL NOT INCLUDED ITEM 202, PAVEMENT REMOVED
PAYMENT FOR ANY ADDITIONAL MATERIAL TO BE EXCAVATED FROM THE SHOULDER AREA BECAUSE OF DIFFERENCES IN EXISTING AREAS AND THE AREAS DESCRIBED BY THE TYPICAL SECTION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "ITEM 203, EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION."

ITEM 604 CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN:

THE REQUIREMENT OF ITEM SHALL GOVERN THE RECONSTRUCTION OF THE EXISTING CATCH BASIN AND SHALL INCLUDE THE FOLLOWING WORK; THE REMOVAL AND DISPOSAL OF THE EXISTING CONCRETE APRON, THE SUBSQUENT REPLACEMENT OF THE CONCRETE APRON AS SHOWN ON SHEET 90 AND IN THE STANDARD DRAWING FOR THE PERTINENT CATCH BASIN. THE SUBSQUENT FILLING OF ERODED DITCH AREAS TO A GRADE THAT WILL DRAIN SATISFACTORY INTO THE RECONTRUCED CATCH BASIN AS DETERMINED BY THE PROJECT ENGINEER AND FOR THE DRESSING UP OF THE SLOPES AROUND THE RECONSTRUCTED CATCH BASINS AN ESTIMATED QUANTITY OF 50 CU. YDS. OF ITEM 203 EMBANKMENT HAS BEEN CARRIED TO THE GENERAL SUMMARY TO REFORM THIS WORK AND SHALL BE USED AS DIRECTED BY THE PROJECT ENGINEER.
PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE PRICE BID FOR EACH UNDER ITEM 604 CATCH BASIN RECONSTRUCTED TO GRADE AS PER PLAN AND SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, LABOR, TOOLS AND EQUIPMENT AND ALL INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

ITEM 304 AGGREGATE BASE, AS PER PLAN:

ITEM 304 AGGREGATE BASE, AS PER PLAN, SHALL RESTRICT THE PERCENT OF AGGREGATE PASSING THE N° 200 SIEVE TO 10 PERCENT MAXIMUM.

ITEM 617 WATER:

AN ESTIMATED QUANTITY OF *400 M GAL. HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED IN SECTION 617.05 OF THE SPECIFICATIONS.

* 12 M. GAL. CITY, STATE & FED.
388 M. GAL. STATE & FED.

LOCATION OF GUARDRAIL:

THE LOCATION OF THE GUARDRAIL RUNS ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

EXISTING REFERENCE MONUMENTS:

LISTED BELOW ARE THE EXISTING REFERENCE MONUMENTS LOCATED AT THE CENTERLINE OF I-70. THE CONTRACTOR, AT HIS OWN COST, SHALL BE RESPONSIBLE FOR REPAIRS OR REPLACEMENT OF ANY MONUMENTS WHICH ARE DAMAGED.

STATION	LOCATION
0+00.00	P.O.T.
5+00.00	P.O.T.
10+00.00	P.O.T.
15+00.00	P.O.T.
20+00.00	P.O.T.
25+35.79	P.C.
30+00.00	P.O.C.
35+00.00	P.O.C.
40+24.71	P.T.
46+00.00	P.O.T.
50+00.00	P.O.T.
55+00.00	P.O.T.
60+00.00	P.O.T.
65+00.00	P.O.T.
70+00.00	P.O.T.
75+00.00	P.O.T.
80+00.00	P.O.T.
85+00.00	P.O.T.
90+00.00	P.O.T.
95+00.00	P.O.T.
100+00.00	P.O.T.
105+00.00	P.O.T.
110+00.00	P.O.T.
115+56.51	P.C.
120+00.00	P.O.C.

STATION	LOCATION
125+00.00	P.O.C.
130+00.00	P.O.C.
135+00.00	P.O.C.
137+88.59	P.T.
250+00.00	P.O.T.
255+00.00	P.O.T.
260+00.00	P.O.T.
265+00.00	P.O.T.
270+00.00	P.O.T.
275+00.00	P.O.T.
280+00.00	P.O.T.
284+91.79	P.C.
290+00.00	P.O.C.
295+00.00	P.O.C.
300+00.00	P.O.C.
305+00.00	P.O.C.
310+00.00	P.O.C.
315+00.00	P.O.C.
320+00.00	P.O.C.
325+00.00	P.O.C.
328+82.62	P.T.
335+00.00	P.O.T.
340+00.00	P.O.T.
345+00.00	P.O.T.
350+00.00	P.O.T.

STATION	LOCATION
355+00.00	P.O.T.
360+00.00	P.O.T.
364+50.00	P.O.T.
370+00.00	P.O.T.
375+00.00	P.O.T.
507+00.00	P.O.T.
512+00.00	P.O.T.
517+00.00	P.O.T.
522+00.00	P.O.T.
527+00.00	P.O.T.
534+00.00	P.O.T.
540+00.00	P.O.T.
545+00.00	P.O.T.
550+00.00	P.O.T.
555+00.00	P.O.T.
560+00.00	P.O.T.
565+00.00	P.O.T.
570+50.00	P.O.T.
576+00.00	P.O.T.
582+00.00	P.O.T.
588+00.00	P.O.T.
594+00.00	P.O.T.
599+00.00	P.O.T.
604+00.00	P.O.T.
609+00.00	P.O.T.

STATION	LOCATION
615+00.00	P.O.T.
620+00.00	P.O.T.
625+00.00	P.O.T.

601 ROCK CHANNEL PROTECTION TYPE D AS PER PLAN

THE MATERIAL FOR THIS ITEM SHALL CONSIST OF ALL NATURAL AGGREGATE SUCH AS ROCK OR BROKEN STONE AND SHALL MEET THE REQUIREMENTS OF TYPE D DUMPED ROCK FILL AS DEFINED IN 601.07.

605 6" PIPE UNDERDRAIN AS PER PLAN

THE REQUIREMENTS OF ITEM 605 SHALL GOVERN THE INSTALLATION OF THE PIPE UNDERDRAIN EXCEPT AS HEREINAFTER MODIFIED: THE BACKFILL MATERIAL SHALL BE MADE OF DURABLE NATURAL AGGREGATE, No. 8 SIZE AND SHALL BE PLACED AROUND THE PIPE FOR THE FULL WIDTH OF THE TRENCH AND SHALL EXTEND TO THE BOTTOM OF THE PAVEMENT OR SUBBASE.

TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS

References to Supplemental Specifications 857, 858, 861, 957, 958 and 961 on the Traffic Control Standard Construction Drawings in these plans shall be considered to read as respective references to Items 630, 631, 633, 730, 731 and 733, in the Construction and Materials Specifications Manual.

ITEM 404 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN

In addition to the requirements of Item 614 Maintaining Traffic and ONCE THE CONTRACTOR HAS INITIATED ACTUAL WORK ON THE PROJECT HE SHALL BE RESPONSIBLE FOR MAINTAINING THE ROADWAY'S PAVEMENT AND TREATED SHOULDERS THROUGHOUT THE PROJECT'S ENTIRE LENGTH IN LIEU OF JUST THE IMMEDIATE AREA OF WORK. HE SHALL MAINTAIN THE ROADWAY'S PAVEMENT AND TREATED SHOULDERS TO AN ACCEPTABLE RIDING QUALITY MUTUALLY AGREEABLE TO BOTH THE OHIO DEPARTMENT OF TRANSPORTATION AND THE CONTRATOR. THIS PERIOD OF RESPONSIBILTY SHALL EXTEND ONLY FROM MAY 1 TO DECEMBER 1 AS LONG AS THE CONTRACT IS IN EFFECT.
PAVEMENT CONDITION SHALL BE REVIEWED AS A PART OF THE PRE-CONSTRUCTION MEETING AND ON APRIL 30 OF EACH YEAR FOLLOWING AS REQUIRED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSE. The cost of all labor, equipment and materials to be included in the unit price bid for
ITEM 404 BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC, AS PER PLAN.

Item 404 Bituminous Concrete for Maintaining Traffic, As per plan - - - 1500 Cu Yd.

The following estimated quantity has been included in the General Summary for maintenance of traffic in the work zone.

Item 404 Bituminous Concrete for Maintaining Traffic - - - 100 Cu Yd.

Rev. 4-8-88

GENERAL NOTES

CALC. BY D.Jr
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

620 DELINEATOR BY TYPE, FLEXIBLE POST MOUNTED

THE CONTRACTOR SHALL FURNISH AND INSTALL FLEXIBLE POST MOUNTED DELINEATORS MANUFACTURED BY :

CARSONITE INTRNATIONAL
30 E. COLUMBUS ST.
OH SALES OFFICE
COLUMBUS OH 43206
614-221-5987

-OR-

SAFE-HIT CORPORATION
1930 W. WINTON AVE. #11
HAYWARD CA
415-783-6550

OF THE DESIGNS SPECIFIED HEREIN.

DESIGN 2 FLEXIBLE POST MOUNTED DELINEATORS SHALL BE MANUFACTURED FROM FIBERGLASS WITH A T CROSS-SECTION. THE POST SHALL BE 72 INCHES LONG AND SHALL BE DRIVEN TO AN INSTALLATION DEPTH OF 18 INCHES INTO GROUND.

DESIGN 4 FLEXIBLE POST MOUNTED DELINEATORS SHALL BE BOOSTER POSTS 27 INCHES IN LENGTH, MANUFACTURED OF FIBERGLASS, WITH A CURVED CROSS SECTION. DESIGN 4 FLEXIBLE POST MOUNTED DELINEATORS SHALL BE INSTALLED ON THE FRONT OF WOODEN GAURDRAIL BLOCKOUTS FACING APPROACHING TRAFFIC. THE DESIGN 4 FLEXIBLE POST MOUNTED DELINEATOR SHALL BE ATTACHED BY HAMMERING INTO THE BLOCKOUT EITHER TWO 5/16 INCH DIAMETER BY 1.25 INCH LONG, ZINC COATED LAG SCREWS WITH ZINCCOATED 5/16 INCH FLAT WASHER OR TWO 5/16 INCH DIAMETER BY 1.25 INCH LONG, ZINC COATED INDENTED HEX WASHER-HEAD LAG SCREWS. ZINC COATED INDENTED HEX WASHER-HEAD LAG SCREWS MAY BE OBTAINED FROM :

TENNESSEE BOLT AND SCREW CO.
MEMPHIS TENN.
901-452-7491

OR

MID STATE BOLT AND NUT CO.
COLUMBUS OH.
614-253-8631

EIGHT WEEKS SHOULD BE ALLOWED FOR DELIVERY FROM THESE FASTENER SUPPLIERS. THE LAG SCREWS AND WASHERS SHALL BE FURNISHED BY THE CONTRACTOR.

THE FLEXIBLE POST MOUNTED DELINEATORS SHALL BE FURNISHED WITH REFLECTORS ATTACHED.THE REFLECTORS SHALL CONSIST OF 3 INCH WIDE BY 6 INCH LONG REFLECTIVE SHEETING CONFORMING TO 730.19 ADHERED TO THE FLEXIBLE POST. THE REFLECTOR COLORS SHALL BE COLORLESS OR YELLOW AS SPECIFIED BY TYPE IN CONFORMANCE WITH 620.01.

INSTALLATION: DELINEATORS SHALL BE INSTALLED FACING TRAFFIC.
THE PROTECTIVE PAPER COVERING THE FACE OF FLEXIBLE POST MOUNTED REFLECTORS SHALL NOT BE REMOVED UNTIL AFTER INSTALLATION. POSTS SHALL BE INSTALLED SO THAT THE FACE OF THE REFLECTOR IS 90 DEGREES TO THE CENTERLINE FACING APPROACHING TRAFFIC AND TO SUCH A DEPTH THAT THE TOPS OF THE INSTALLED REFLECTORS SHALL BE 48 INCHES PLUS OR MINUS 1 INCH ABOVE THE ELEVATION OF THE ADJACENT EDGE OF PAVEMENT. POSTS SHALL BE ERECTED VERTICALLY AND SHALL NOT BE MORE THAN 1/4 INCH PER FOOT OUT OF PLUMB POSITION IN ANY DIRECTION. DELINEATOR POSTS SHALL BE INSTALLED BY DRIVING USING ONLY MANUAL TECHNIQUES.

IF SOIL CONDITIONS WOULD CAUSE THE POST TO BE OUT OF PLUMB, THE CONTRACTOR MAY DRIVE A PILOT SHAFT BEFORE INSTALLATION.

FLEXIBLE POST INSTALLATION METHODS AND EQUIPMENT SHALL COMPLY WITH THE POST MANUFACTURER'S RECOMMENDATIONS ON FILE WITH THE DIRECTOR UNLESS PRIOR WRITTEN APPROVAL OF ALTERNATE TECHNIQUES ARE OBTAINED FROM THE DIRECTOR.

FLEXIBLE DELINEATORS TO BE MOUNTED AS BOOSTER POSTS ON THE FRONT OF WOODEN GAURDRAIL BLOCKOUTS SHALL BE ATTACHED BY HAMERING INTO THE BLOCKOUT EITHER TWO 5/16 INCH DIAMETER BY 1 1/4 INCH LONG, ZINC COATED LAG SCREWS WITH ZINC COATED 5/16 INCH FLAT WASHERS OR TWO 5/16 INCH DIAMETER BY 1 1/4 INCH LONG, ZINC COATED INDENTED HEX WASHER-HEAD LAG SCREWS.

DELINEATOR POSTS PLACED IN CONCRETE MEDIANS MAY BE INSTALLED BY PLACING THEM IN 4 INCH SLEEVES OR CORE DRILLED HOLES. THE HOLES SHALL BE FILLED WITH ASPHALTIC CONCRETE AFTER THE POST IS IN PROPER POSITION.

LAYOUT: THE CONTRACTOR SHALL LAYOUT ALL DELINEATOR LOCATIONS TO ASSURE THEIR PROPER PLACEMENT. THE LAYOUT SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATION OPERATIONS ARE STARTED. THE LAYOUT SHALL BE INCIDENTAL TO THE INSTALLATION OPERATIONS.

THIS WORK SHALL CONSIST OF LOCATING AND MARKING ON THE ROADWAY THE FOLLOWING DELINEATOR FEATURES AS DETERMINED FROM THE LOCATION INFORMATION IN THE PLANS OR FROM SCHEMATICS OF HORIZONTAL CURVES AND RAMPS PROVIDED IN THE PLAN.

1) BEGINNING OF EACH RUN WITH CONSTANT SPACING OF DELINEATORS SPECIFYING DELINEATOR TYPE, COLOR, SIDE OF ROAD AND SPACING.

2) END OF EACH RUN WITH CONSTANT SPACING.

3) BEGINNING OF EACH RUN WITH VARIABLE SPACING SPECIFYING DELINEATOR TYPE, COLOR, SIDE OF ROAD AND SPACING.

4) END OF EACH RUN WITH VARIABLE SPACING.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM 620 DELINEATOR REMOVED FOR STORAGE 348 EACH

ITEM 620 DELINEATOR, TYPE C, DESIGN 2, FLEXIBLE POST MOUNTED 351 EACH

ITEM 620 DELINEATOR, TYPE C, DESIGN 4,FLEXIBLE POST MOUNTED 38 EACH

ITEM 620 DELINEATOR, TYPE D, DESIGN 2, FLEXIBLE POST MOUNTED 105 EACH

	ITEM 620			
LOCATION	DELINEATOR REMOVED FOR STORAGE EACH	DELINEATOR,TYPE C DESIGN 2, FLEXIBLE POST MOUNTED EACH	DELINEATOR, TYPE C DESIGN 4, FLEXIBLE POST MOUNTED EACH	DELINEATOR, TYPE D DESIGN 2, FLEXIBLE POST MOUNTED EACH
E.B. MAINLINE	102	120	9	
W.B. MAINLINE	108	117	12	
SR256 RAMP				
A	12	6	2	11
B	4	9		
C	17	18		9
D	22	3	2	30
E	11	5	2	9
F		1		
SR310 RAMP				
A	8	5	2	13
B	16	9	4	5
C	7	11		5
D	11	7	5	7
E	1	1		
SR158 RAMP				
S.W.	5	9		5
S.E.	6	9		4
N.W.	7	12		
N.E.	11	9		7
TOTALS	348	351	38	105

RAISED PAVEMENT MARKER GENERAL NOTES

DESCRIPTION

IN ACCORDANCE WITH THE LINES, SYMBOLS, AND DIMENSIONS SHOWN ON THE PLANS OR AS DESCRIBED HEREIN, THE WORK SHALL CONSIST OF FURNISHING AND INSTALLING PLOWABLE RAISED PAVEMENT MARKERS (HEREAFTER REFFERRED TO AS RPMs), AND FURNISHING AND INSTALLING PRISMATIC RETRO-REFLECTORS.

THE CONTRACTOR SHALL FURNISH ALL MATERIALS, SERVICES, LABOR AND EQUIPMENT NECESSARY FOR THE REQUIRED PAVEMENT PREPARATION AND PLACEMENT OF RPMs AND PRISMATIC RETRO-REFLECTORS FOR EACH ITEM DESCRIBED HEREIN.

MATERIALS

THE RPM SHALL CONSIST OF TWO COMPONENTS. ONE COMPONENT IS A CASTING; THE OTHER COMPONENT IS A PRISMATIC RETRO-REFLECTOR. BOTH COMPONEMTS OF THE RPM SHALL BE AS MANUFACTURED BY THE AMERACE CORPORATION, NILES, ILLINOIS OR AN APPROVED FUNCTIONAL EQUIVALENT.

THE CONTRACTOR – FURNISHED CASTINGS SHALL BE EITHER STIMSONITE MODEL 96 OR STIMSONITE MODE 96 LP (low profile), TWO WAY PLOWABLE RPM CASTINGS.

THE CONTRACTOR – FURNISHED PRISMATIC RETRO-REFLECTORS SHALL BE EITHER STIMSONITE MODEL 944P REFLECTORS OR STIMSONITE MODEL 944SB REFLECTORS OR EQUIVALENTS.

A ONE-WAY RPM IS EQUIPPED WITH A PRISMATIC RETRO-REFLECTOR WHICH RETRO-REFLECTS LIGHT IN ONE DIRECTION ONLY. A TWO-WAY RPM IS EQUIPPED WITH A PRISMATIC RETRO-REFLECTOR WHICH RETRO-REFLECTS LIGHT IN TWO OPPOSING DIRECTIONS.

THE CASTING ADHESIVE USED TO BOND THE RPM TO THE PAVEMENT SHALL BE A TWO-COMPONENT STANDARD SET EPOXY MEETING THE REQUIREMENTS SHOWN IN AASHTO M-237, TYPE IV, TABLE 3.

THE REFLECTOR ADHESIVE USED BY THE CONTRACTOR TO BOND THE PRISMATIC RETRO-REFLECTOR TO CASTINGS SHALL BE EITHER: MACCO, LN-602 (Liquid Nails), A WATERPROOF SYNTHETIC RUBBER AND RESIN BASED ADHESIVE, MANUFACTURED BY SCM GLIDDEN-DURKEE, DIVISION OF SCM CORPORATION, MACCO ADHESIVES GROUP, WICKLIFFE, OHIO 44092; OR FRANKLIN PANEL AND METAL FRAMING ADHESIVE, A SOLVENT MASTIC OF RUBBER, RESIN, AND REINFORCING INERT MATERIAL DISSOLVED OR DISPERSED IN FLAMMABLE SOLVENT, MANUFACTURED BY FRANKLIN CHEMCIAL INDUSTRIES, INC., GENERAL OFFICES, 2020 BRUCK ST., P.O. BOX 07802, COLUMBUS, OHIO 43207 OR AN APPROVED FUNCTIONAL EQUIVALENT.
ALL MATERIALS ARE TO BE CONTRACTOR FURNISHED.

TESTING AND CERTIFICATION

THE REQUIREMENT OF TESTING AND CERTIFICATION SHALL APPLY TO ALL MATERIALS FURNISHED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER CERTIFIED TEST DATA OF THE MATERIALS' PHYSICAL CHARACTERISITICS AND CERTIFICATION THAT THE MATERIALS WERE MANUFACTURED AND ASSEMBLED IN ACCORDANCE WITH APPLICABLE DEPARTMENT SPECIFICATIONS. THE RESULTS OF ALL FACTORY QUALITY CONTROL INSPECTION OF THE PRISMATIC RETRO-REFLECTORS TO CASTING BOND SHALL BE INCLUDED IN THE PHYSICAL CHARACTERISITICS DATA.

IN ADDITION TO THE REQUIREMENTS OF 106.03, THE CONTRACTOR SHALL FURNISH TO THE ENGINEER NO LATER THAN TWO WEEKS PRIOR TO STARTING WORK ON THIS ITEM, CERTIFIED TEST DATA THAT THE PRISMATIC RETRO-REFLECTORS MEET THE FOLLOWING REQUIREMENTS.
THE CERTIFIED TEST DATA FOR THE PRISMATIC RETRO-REFLECTORS SHALL BE OBTAINED BY AN INDEPENDENT TEST LABORATORY.

1. BRIGHTNESS REQUIREMENTS:

A. DEFINITIONS

HORIZONTAL ENTRANCE ANGLE SHALL MEAN THE ANGLE IN THE HORIZONTAL PLANE BETWEEN THE DIRECTION OF ENTRANCE LIGHT AND THE NORMAL TO THE LEADING EDGE OF THE REFLECTORS. DIVERGENCE ANGLE SHALL MEAN THE ANGLE AT THE REFLECTOR BETWEEN OBSERVER'S LINE OF SIGHT AND THE DIRECTION OF THE LIGHT ENTRANCE ON THE REFLECTOR.

B. OPTICAL PERFORMANCE

1. STEEL WOOL ABRASION PROCEDURE
FROM A 1" DIAMETER FLAT PAD USING #3 COARSE STEEL WOOL PER FEDERAL SPECIFICATION FF-W-1825. PLACE THE STEEL WOOL PAD ON THE REFLECTOR LENS. APPLY A LOAD OF 50 POUNDS AND RUB THE ENTIRE LENS SURFACE 100 TIMES. (NOTE: ON TWO COLOR UNITS THE RED LENS SHOULD NOT BE ABRADED.)

2. REFLECTIVE BRILLIANCE
AFTER ABRADING THE LENS SURFACE, USING THE FOREGOING STEEL WOOL ABRASION PROCEDURE, THE REFLECTIVE BRILLIANCE OF EACH CRYSTAL (WHITE) REFLECTING SURFACE AT 0.2° DIVERGENCE ANGLE SHALL NOT BE LESS THAN THE FOLLOWING WHEN THE ENTRANCE LIGHT IS PARALLEL TO THE BASE OF THE REFLECTOR.

HORIZONTAL ENTRANCE ANGLE	REFLECTIVE BRILLIANCE CANDLEPOWER/FT. C
0°	3.0
20°	1.2

FOR YELLOW RELECTORS, THE REFLECTIVE BRILLIANCE SHALL BE 60% OF THE VALUE FOR CRYSTAL (WHITE). FOR RED REFLECTORS, THE REFLECTIVE BRILLIANCE SHALL BE 25% OF THE VALUE FOR CRYSTAL (WHITE).

3. OPTICAL TESTING PROCEDURE

A MINIMUM SAMPLE OF 30 REFLECTORS OF EACH COLOR FOR EACH PROJECT SHALL BE TESTED. THE REFLECTOR TO BE TESTED SHALL BE LOCATED WITH THE CENTER OF THE REFLECTING FACE AT A DISTANCE OF 5 FEET FROM A UNIFORMLY BRIGHT LIGHT SOURCE HAVING AN EFFECTIVE DIAMETER OF 0.28 INCHES.

THE PHOTOCELL WIDTH SHALL BE AN ANGULAR RING .37" I. D. – .47" O. D. IT SHALL BE SHIELDED TO ELIMINATE STRAY LIGHT. THE DISTANCE FROM LIGHT SOURCE CENTER TO THE PHOTOCELL CENTER SHALL BE 0.21" INCHES.
IF A TEST DISTANCE OF OTHER THAN 5 FEET IS USED, THE SOURCE AND RECEIVER DIMENSIONS AND THE DISTANCE BETWEEN SOURCE AND RECEIVER SHALL BE MODIFIED IN PROPORTION TO THE TEST DISTANCE.
FAILURE OF MORE THAN 4% OF THE REFLECTING FACES SHALL BE UNACCEPTABLE.

II. SEAL TEST REQUIREMENTS

A SAMPLE OF 50 UNITS SHALL BE SUBMERGED IN WATER AT ROOM TEMPERATURE AND SUBJECTED TO A VACUUM OF 5 INCHES GAGE FOR FIVE MINUTES. AFTER RESTORING ATMOSPHERIC PRESSURE THE UNITS SHALL BE LEFT SUBMERGED FOR AN ADDITIONAL FIVE MINUTES. WHEN EXAMINED FOR WATER INTAKE, FAILURE OF MORE THAN ONE UNIT SHALL BE CAUSE FOR REJECTION OF THE SHIPMENT.

III. HEAT RESISTANCE TEST REQUIREMENTS

THREE REFLECTORS SHALL BE TESTED FOR FOUR HOURS IN A CIRCULATING AIR OVEN AT 175°F PLUS OR MNUS 5°F. THE TEST SPECIMENS SHALL BE PLACED IN A HORIZONTAL POSITION ON A GRID OR PERFORATED SHELF PERMITTING FREE AIR CIRCULATION. AT THE CONCLUSION OF THE TEST THE SAMPLES SHALL BE REMOVED FROM THE OVEN AND PERMITTED TO COOL IN AIR TO ROOM TEMPERATURE. THE SAMPLES AFTER EXPOSURE TO HEAT SHALL SHOW NO SIGNIFICANT CHANGE IN SHAPE AND GENERAL APPEARANCE WHEN COMPARED WITH CORRESPONDING UNEXPOSED CONTROL STANDARDS. THERE SHALL BE NO FAILURES.

IV. STRENGTH TESTING PROCEDURE AND REQUIREMENTS

A RANDOM SAMPLE OF THREE REFLECTORS SHALL BE SELECTED FOR TEST PURPOSES.

CENTER THE REFLECTOR BASE DOWN OVER THE OPEN END OF A HOLLOW METAL CYLINDER 1 IN. (2.5 cm) HIGH, 3 IN. (7.6 cm) I.D., 3.5 IN. (8.9 cm) O.D. APPLY A LOAD TO THE TOP OF THE REFLECTOR THROUGH A 1 IN. (2.5 cm) DIAMETER BY 1 IN. (2.5 cm) HIGH METAL PLUG CENTERED ON THE TOP OF THE REFLECTOR. RATE OF LOADING SHALL BE 0.2 IN. (0.5 cm) PER MINUTE.
FAILURE SHALL CONSTITUTE EITHER BREAKAGE OR SIGNIFICANT DEFORMATION OF THE REFLECTOR AT ANY LOAD OF LESS THAN 2000 LBS. (909 kg)

V. IMPACT AND TEMPERATURE CYCLING TESTS

(NOTE: ON TWO COLOR UNITS, THE RED LENS SHOULD NOT BE SUBJECTED TO IMPACT TEST).

A. SAMPLING
A RANDOM SAMPLE OF REFLECTORS TO PROVIDE 20 LENSES FOR EACH TEST (40 TOTAL) SHALL BE SELECTED FROM EACH LOT.

B. IMPACT TESTING

CONDITION THE REFLECTORS IN A CONVECTION OVEN AT 130° DEGREES F FOR ONE HOUR. WHILE AT THE ELEVATED TEMPERATURE, IMPACT THE REFLECTIVE FACE BY ALLOWING A 1.42 LBS. (0.644 kg) DART FITTED WITH A 0.25 IN. (0.64cm) RADIUS SPHERICAL HEAD TO DROP 18 IN. (45.7 cm) PERPENDICULARLY ONTO THE CENTER OF THE REFLECTIVE SURFACE. CRACKS IN THE IMPACT AREA SHALL BE GENERALLY CONCENTRIC IN APPEARANCE. THERE SHALL BE NO MORE THAN TWO RADIAL CRACKS LONGER THAN 0.25 IN. (0.64 cm). THERE SHALL BE NO RADIAL CRACKS EXTENDING TO THE EDGE OF THE GLASS.

C. TEMPERATURE CYCLING

SUBJECT SAMPLES TO THREE CYCLES OF 140° DEGREES F (60 C) FOR 4 HOURS FOLLOWED BY 20 DEGRRES F (-7 C) FOR 4 HOURS. THERE SHALL BE NO CRACKING OR DELAMINATION FOLLOWING TEMPERATURE CYCLING.

D. TOLERANCE

IN EITHER THE IMPACT OR TEMPERATURE TEST, IF 90% (18 LENSES) OF THE TEST SAMPLES MEET THE ABOVE REQUIREMENTS, THE LOT SHALL BE ACCEPTABLE. FAILURE OF FOUR LENSES OF THE SAMPLE SHALL BE CAUSE FOR REJECTION OF THE LOT. FAILURE OF THREE LENSES SHALL NECESSITATE A RESAMPLE OF 20 ADDITIONAL LENSES. FAILURE OF MORE THAN ONE LENS OF THE RESAMPLE SHALL BE CAUSE FOR REJECTION OF THE LOT.

THE CONTRACTOR SHALL FURNISH TO THE ENGINEER, NO LATER THAN TWO WEEKS PRIOR TO STARTING WORK ON THIS ITEM, CERTIFIED TEST DATA FOR THE CASTING ADHESIVE TO BE ATTAINED IN COMPLIANCE WITH AASHTO M237, TYPE IV AND IN ACCORDANCE WITH 101.061 A QUART SAMPLE OF EACH COMPONENT A & B SHALL BE FORWARDED TO THE BUREAU OF TESTS. 1600 W. BROAD ST., COLUMBUS, OHIO 43215.

THE CONTRACTOR SHALL FURNISH THE ENGINEER A ONE TUBE SAMPLE OF THE REFLECTOR ADHESIVE TO BE USED ON THE PROJECT.

FOR REFLECTOR ADHESIVES OTHER THAN MACCO, LN-602 (LIQUID NAILS) OR FRANKLIN PANEL AND METAL FRAMING ADHESIVE, THE CONTRACTOR SHALL FURNISH TO THE ENGINEER, NO LATER THAN TWO WEEKS PRIOR TO STARTING WORK ON THIS ITEM, A CERTIFICATE OF ANALYSIS CONTAINING THE CERTIFIED FORMULATION OF THE SYNTHETIC RUBBER AND RESIN BASED REFLECTOR ADHESIVE. THE CERTIFIED FORMULATION SHALL BE FOR EACH MATERIAL THE ACTUAL PERCENT BY WEIGHT. A CERTIFIED FORMULATION WILL BE REQUIRED ONCE FOR EACH RPM PROJECT.

PAVEMENT PREPARATION

THE CONTRACTOR SHALL CLEAN AND PREPARE THE PAVEMENT TO WHICH THE RPM CASTING IS TO BE BONDED, TO THE SATISFACTION OF THE ENGINEER, SUCH THAT AT THE TIME OF RPM INSTALLATION THE PAVEMENT SHALL BE FREE OF DIRT, DUST, OIL, GREASE, MOISTURE, CURING COMPOUND, LOOSE OR UNSOUND LAYERS OR ANY OTHER MATERIAL WHICH WOULD INTERFERE WITH PROPER BONDING OF THE RPM TO THE PAVEMENT.

LAYOUT

BEFORE BEGINNING RPM CASTING INSTALLATION, THE CONTRACTOR SHALL ACCURATELY AND ADEQUATELY LAY OUT, BY REFERENCE POINTS, THE LOCATION OF ALL RPMs.

RPMs SHALL NOT BE PLACED ON PAVEMENT SURFACES THAT SHOW VISIBLE EVIDENCE OF CRACKING, CHECKING, SPALLING, OR FAILURE OF UNDERLYING BASE MATERIAL.

RPMs SHALL NOT BE PLACED WITHIN ONE FOOT OF ACTIVE SIGNAL DETECTOR LOOP WIRES. THE CONTRACTOR SHALL EXERCISE EXTREME CARE SO THAT DETECTOR LEADIN CABLES WILL NOT BE CUT. RPMs SHALL NOT BE PLACED DIRECTLY OVER PAVEMENT MARKINGS EXCEPT WHERE THE PAVEMENT MARKINGS DEVIATE VISIBLY FROM THEIR CORRECT ALIGNMENT, AND THEN ONLY WITH THE APPROVAL OF THE ENGINEER. RPMs SHALL NOT BE PLACED AT A PAVEMENT CONSTRUCTION JOINT OR WITHIN AN INTERSECTION OF A DRIVEWAY OR PUBLIC STREET AS A RESULT OF TYPICAL RPM SPACING.

RAISED PAVEMENT MARKER GENERAL NOTES

CALC. BY — DATE 2-23-98 CHKD. BY — DATE 2-24-98	FAI-70-0.00 LIC-70-0.00	OHIO FHWA REGION 5	30-A 126

IF DURING THE PRE-INSTALLATION LAYOUT OPERATIONS, IT IS DETERMINED THAT A RPM WOULD BE PLACED AT A POINT WITH ONE OF THE AFOREMENTIONED CONDITIONS, THE AFFECTED RPM SHALL BE RELOCATED LONGITUDINALLY A SUFFICIENT DISTANCE TO A POINT APPROVED BY THE ENGINEER. THE DISTANCE THE RPM MAY BE RELOCATED SHALL NOT EXCEED 10% OF THE TYPICAL RPM SPACING. WHERE IT WOULD BE NECESSARY TO RELOCATE THE RPM A DISTANCE GREATER THAN 10% OF THE TYPICAL RPM SPACING, THE AFFECTED RPM SHALL NOT BE INSTALLED.

DISCONTINUTIES, INTERRUPTIONS OR GAPS IN THE STANDARD RPM SPACING TO AVOID INSTALLATION IN BRIDGE DECK SURFACES SHALL NOT BE PERMITTED. WHEN THE TYPICAL RPM SPACINGS WOULD REQUIRE AN RPM TO BE INSTALLED ON A BRIDGE DECK NEAR THE BRIDGE ENDDAM, THE SUBJECT RPM SHALL BE RELOCATED TO THE APPROACH SLAB. THIS PROCEDURE SHALL BE WAIVED FOR ALL BRIDGE DECK MOUNTED RPMs WHOSE TYPICAL LOCATIONS ARE SEPARATED FROM THE BRIDGE ENDDAM BY A DISTANCE EXCEEDING 10% OF THE TYPICAL RPM SPACING.

WHEN PLACING RPMs AT AN EXISTING RPM INSTALLATION, THE NEW LOCATION OF EACH RPM SHALL BE NOT MORE THAN ONE FOOT LONGITUDINALLY IN EITHER DIRECTION FROM THE DAMAGED OR MISSING CASTING LOCATION. UNLESS THE DOWNSTREAM TRAFFIC LOCATION HAS SUPERIOR PAVEMENT QUALITY TO THE UPSTREAM TRAFFIC LOCATION, THE PREFERRED LOCATION SHALL BE THE UPSTREAM LOCATION.

DAMAGED CASTINGS WITH PRISMATIC RETRO-REFLECTORS STILL INTACT SHALL BE REPLACED AS DETERMINED BY THE ENGINEER.

PLACEMENT OF RPMs

AT THE TIME OF PLACEMENT IN THE PAVEMENT, THE RPM CASTING SHALL BE FREE OF DIRT, DUST, OIL, GREASE, RUST, MOISTURE OR ANY FOREIGN MATTER WHICH WILL IMPAIR ADHESION TO THE PAVEMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN EACH CONTAMINATED CASTING BY SAND BLASTING OR OTHER ACCEPTABLE PROCEDURES APPROVED BY THE ENGINEER TO REMOVE ALL SUCH FOREIGN MATTER PRIOR TO INSTALLATION.

THE PAVEMENT SURFACE TEMPERATURE AT THE TIME OF RPM PLACEMENT SHALL BE NOT LESS THAN 50 F. THE AMBIENT AIR TEMPERATURE SHALL BE NOT LESS THAN 50 F. RPMs SHALL NOT BE INSTALLED IF THE PAVEMENT SURFACE IS VISIBLY WET.

THE CONTRACTOR SHALL KEEP TRAFFIC OFF NEWLY INSTALLED RPMs UNTIL THE EPOXY IS DRY BUT NOT LESS THAN THE MINIMUM PERIOD SPECIFIED IN THE FOLLOWING TABLE.

AMBIENT AIR TEMPERATURE F	MINIMUM PERIOD (Minutes) PROTECTED FROM TRAFFIC
100	15
90	20
80	25
70	30
60	35
50(no application below 50 F).	45

DURING PERIODS OF HIGH AMBIENT RELATIVE HUMIDITY, EPOXY MAY REQUIRE A LONGER DRYING TIME THAN INDICATED ABOVE.

RPMs SHALL BE INSTALLED BY INSERTING THE TWO KEELS ON THE CASTING INTO PARALLEL SLOTS CUT INTO THE PAVEMENT, THE RPM CASTINGS SHALL BE INSTALLED WITHIN 10 DAYS AFTER THE SLOTS ARE CUT INTO THE PAVEMENT.

THE CASTING ADHESIVE SHALL BE MIXED BY COMBINING COMPONENTS A (EPOXY) AND B (HARDENER) IN A RATIO OF 1:1 BY VOLUME. THE CASTING ADHESIVE REQUIRES THAT THE MIXING OPERATION AND PLACING OF THE RPM's BE DONE RAPIDLY. ANY MIXED BATCH THAT BECOMES SO VISCOUS THAT IT CANNOT BE READILY EXTRUDED FROM UNDER THE RPM WITH LIGHT PRESSURE SHALL NOT BE USED. THE CASTING ADHESIVE SHALL BE MAINTAINED AT 60 DEGREE F TO 80 DEGREE F BEFORE MIXING. ANY HEATING OF THE CASTING ADHESIVE SHALL BE BY THE APPLICATION OF INDIRECT HEAT. THE ADHESIVE SHALL NOT BE HEATED ABOVE 120 DEGREE F.

BEFORE APPLYING THE CASTING ADHESIVE, THE SLOTS SHALL BE BRUSHED OR BLOWN CLEAN OF LOOSE MATERIAL AND SHALL BE DRY. THE CLEANED SLOTS SHALL BE FILLED WITH CASTING ADHESIVE. SUFFICENT EPOXY SHALL BE PLACED IN BETWEEN THE SLOTS TO INSURE THAT ALL VOIDS BENEATH AND AROUND THE CASTING ARE FILLED SO AS TO CREATE A WATERTIGHT SEAL AROUND THE CASTING. THE KEELS OF THE CASTING SHALL BE PLACED INTO THE SLOTS IN SUCH A MANNER AS TO ASSURE THAT THE TIPS OF THE RPM SNOWPLOW DEFLECTING SURFACES ARE BELOW THE PAVEMENT SURFACE AND THAT THE FOUR LUGS ON THE KEELS OF THE CASTING ARE IN CONTACT WITH THE PAVEMENT.

THE CONTRACTOR MAY ATTACH THE PRISMATIC RETRO-REFLECTORS TO NEW CASTINGS WHICH DO NOT INCLUDE A RETRO-REFLECTOR ALREADY FACTORY ATTACHED BY AMERACE CORPORATION AT ANY TIME PRIOR TO THE INSERTION OF THE CASTING INTO THE PAVEMENT SLOTS. OTHERWISE, THE PRISMATIC RETRO-REFLECTOR SHALL NOT BE ATTACHED TO A NEW CASTING UNTIL AFTER THE EPOXY ADHESIVE IN THE PAVEMENT SLOTS HAS PROPERLY HARDENED. IN EITHER OPERATION, THE FOLLOWING PRISMATIC RETRO-ERFLECTOR ATTACHMENT PROCEDURE SHALL BE USED. THE RPM CASTING SHALL BE RID OF DIRT, DUST, OIL, GREASE, RUST, MOISTURE OR ANY FOREIGN MATTER (INCLUDING DAMAGED REFLECTORS OR PARTS THEREOF) WHICH WILL IMPAIR ADHESION OF THE PRISMATIC RETRO-REFLECTOR TO THE CASTING. SANDBLASTING SHALL BE UTILIZED TO RID THE RECESSED PRISMATIC RETRO-REFLECTOR ATTACHMENT AREA OF THE CASTING OF FOREIGN MATTER. IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT IN WRITING TO THE DIRECTOR, NOT LATER THAN THE PROJECT PRE-CONSTRUCTION CONFERENCE, AN ALTERNATE METHOD FOR REMOVING ALL FOREIGN MATTER FROM THE RECESSED PRISMATIC RETRO-REFLECTOR ATTACHMENT AREA OF THE CASTING PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED. NO ALTERNATE METHOD SHALL BE USED UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR. AS A CONDITION OF APPROVAL A DEMONSTRATION OF THE CONTRACTOR'S PROPOSED ALTERNATE METHOD MAY BE REQUIRED.

REFLECTOR ADHESIVE SHALL BE UNIFORMLY APPLIED IN A SINGLE BEAD ACROSS THE RECESSED PRISMATIC RETRO-REFLECTOR ATTACHMENT AREA OF THE RPM CASTING AT THE RATE OF ONE (1) OUNCE MINIMUM (BY WEIGHT) PER THREE (3) PRISMATIC RETRO-REFLECTORS ATTACHED. THE PRISMATIC RETRO-REFLECTOR SHALL BE INSERTED INTO THE RECESSED ATTACHMENT AREA AND PRESSED INTO PLACE UNTIL A SMALL AMOUNT OF REFLECTOR ADHESIVE SQUEEZES OUT ON ALL SIDES AND BOND HAS BEEN MADE WITH THE CASTING. THE CONTRACTOR SHALL PRESS THE PRISMATIC RETRO-REFLECTOR INTO PLACE BY THE APPLICATION OF A LOAD OF NOT LESS THAN 100 POUNDS OR BY A PROCEDURE ACCEPTABLE TO THE ENGINEER. ADHESIVE MATERIAL SHALL NOT BE PERMITTED ON THE REFLECTIVE SURFACE OF THE PRISMATIC RETRO-REFLECTOR. THE PAVEMENT SURFACE TEMPERATURE AND THE AMBIENT AIR TEMPERATURE SHALL BE AT OR ABOVE 40 F AT THE TIME OF APPLICATION OF THE PRISMATIC RETRO-REFLECTOR. THE CONTRACTOR SHALL NOT ATTACH THE PRISMATIC RETRO-REFLECTOR TO THE CASTING WHEN RAIN OVER THE WORK SITE IS IMMINENT.

PLACEMENT TOLERANCES

RPM's INSTALLED AT THE DOUBLE YELLOW CENTER LINE SHALL BE CENTERED BETWEEN THE TWO MARKED LINES. RPM's INSTALLED ALONG AN EDGE OR CHANNELIZING LINE SHALL BE PLACED SO THAT THE NEAR EDGE OF THE MARKER CASTING IS NO MORE THAN 1 INCH FROM THE NEAR EDGE OF THE MARKED LINE. RPM'S INSTALLED ALONG A LANE LINE OR DASHED YELLOW CENTER LINE SHALL BE PLACED BETWEEN AND IN LINE WITH THE DASHES.

REPLACEMENT OF PRISMATIC RETRO-REFLCTORS

DAMAGED OR MISSING PRISMATIC RETRO-REFLECTORS WITHIN THE EXISTING MARKER INSTALLATIONS WHERE THE CASTING REMAINS INTACT SHALL BE REPLACED WITH THE REFLECTOR TYPE SHOWN ON THE DETAILS IN THE PLAN. DAMAGED REFLECTORS INCLUDE THOSE THAT ARE LOOSE OR HAVE BEEN BROKEN, CHIPPED, CRACKED OR HAVE OTHERWISE LOST THEIR RETRO-REFLECTIVE PROPERTIES AS DETERMINED BY THE ENGINEER. THE LOCATION OF EXISTING RPM'S THAT REQUIRE THE REPLACEMENT OF DAMAGED OR MISSING RETRO-REFLECTORS SHALL BE DETERMINED BY THE ENGINEER.

SOME EXISTING CASTINGS HAVE REMNANTS OF THE OLD RETRO-REFLECTORS OR CONTAIN ENTIRE RETRO-REFLECTORS THAT ARE NOT SERVICEABLE. WHEN REPLACING RETRO-REFLECTORS IN SUCH CASTINGS, THE WORK SHALL INCLUDE REMOVING WHATEVER REMAINS OF THE OLD RETRO-REFLECTOR.

THE ATTACHMENT PROCEDURE FOR REPLACING PRISMATIC RETRO-REFLECTORS WITHIN EXISTING RPM INSTALLATIONS SHALL BE AS DESCRIBED IN THE NOTE TITLED PLACEMENT OF RPM's, WITH THE ADDITIONAL REQUIREMENT THAT THE REFLECTOR ATTACHMENT AREA OF THE CASTING BE SAND BLASTED IMMEDIATELY PRIOR TO REFLECTOR ATTACHMENT.

RPM SUPPLEMENT MARKING DESCRIPTIONS

CHANNELIZING LINES: RPM's WHICH ARE USED IN CHANNELIZING LINE APPLICATIONS SHALL HAVE ONE-WAY PRISMATIC RETRO-REFLECTORS FACING TRAFFIC WHICH SHALL BE WHITE IN COLOR TO MATCH THE CHANNELIZING LINE COLOR.

LANE LINES: RPM's WHICH ARE USED IN LANE LINE APPLICATINS SHALL HAVE TWO-WAY PRISMATIC RETRO-REFLECTORS, WHITE FACING TRAFFIC AND RED FACING THE THE OPPOSITE DIRECTION.

FREEWAY AND EXPRESSWAY LANE LINE REFLECTORS: RPM's USED IN FREEWAY AND EXPRESSWAY LANE LINE APPLICATIONS SHALL HAVE ONE-WAY PRISMATIC RETRO-REFLECTORS, WHITE FACING TRAFFIC, EXCEPT AS NOTED BELOW.

AT FREEWAY AND EXPRESSWAY INTERCHANGES TWO-WAY PRISMATIC RETRO-REFLECTORS, WHITE FACING TRAFFIC AND RED FACING THE OPPOSITE DIRECTION, SHALL BE PLACED FOR 1600 FEET UPSTREAM MEASURED FROM THE PHYSICAL GORE OF THE FIRST DECELERATION LANE IN THE INTERCHANGE. WHERE SUBSEQUENT DECELERATION LANES ARE PRESENT, TWO-WAY WHITE/RED REFLECTORS CONTINUE THROUGH THE INTERCHANGE, TO THE PHYSICAL GORE OF THE LAST DECELERATION LANE IN THE INTERCHANGE. WHERE THERE ARE NO SUBSEQUENT DECELERATION LANES AT THE INTERCHANGE THE PLACEMENT OF ONE-WAY WHITE RETRO-REFLECTORS SHALL RESUME AS REQUIRED IN THE PLAN.

ON THE EXPRESSWAY MAINLINE APPROACHES TO AT-GRADE INTERSECTIONS, TWO-WAY PRISMATIC RETRO-REFLECTORS, WHITE FACING TRAFFIC AND RED FACING THE OPPOSITE DIRECTION SHALL BE PLACED FOR 1600 FEET UPSTREAM FROM THE INTERSECTION.

EDGE LINES: RPM's WHICH ARE USED IN EDGE LINE APPLICATIONS SHALL HAVE ONE-WAY PRISMATIC RETRO-REFLECTORS WHICH MATCH THE EDGE LINE COLOR (WHITE FACING TRAFFIC FOR RIGHT EDGE LINES; YELLOW FACING TRAFFIC FOR LEFT EDGE LINES).

CENTER LINES: RPM's WHICH ARE USED IN CENTER LINE APPLICATIONS SHALL HAVE TWO-WAY PRISMATIC RETRO-REFLECTORS, WHICH SHALL BE YELLOW TO MATCH THE CENTER LINE COLOR. IN LIEU OF THE REQUIREMENTS OF TC 65.10 THE TYPICAL SPACING FOR CENTER LINE RPM's ON TWO-LANE, TWO-WAY ROADWAYS SHALL BE 80'. OTHER CENTER LINE RPM SPACINGS SPECIFIED IN TC 65.11, TC 65.12 AND TC 65.13 SHALL CONTINUE TO APPLY.

METHOD OF MEASUREMENT

THE NUMBER OF RPM's WILL BE THE ACTUAL NUMBER FURNISHED COMPLETE WITH PRISMATIC RETRO-REFLECTOR IN PLACE, AND ACCEPTED, IN THE UNITS DESIGNATED, INCLUDING LAYOUT , PREMARKING, SURFACE PREPARATION, AND THE FURNISHING AND APPLICATION OF ALL REQUIRED ADHESIVES.
THE NUMBER OF PRISMATIC RETRO-REFLECTORS WILL BE THE ACTUAL NUMBER CONTRACTOR SUPPLIED COMPLETE IN PLACE ON EXISTING RPM CASTINGS IN THE PAVEMENT AND ACCEPTED IN THE UNITS DESIGNATED INCLUDING CASTING PREPARATION AND THE FURNISHING AND APPLICATION OF ALL REQUIRED ADHESIVES.

BASIS OF PAYMENT

PAYMENT FOR ACCEPTED QUANTITIES IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE FOR :

ITEM	UNIT	DESCRIPTION
SPECIAL	EACH	RAISED PAVEMENT MARKER
SPECIAL	EACH	RAISED PAVEMENT MARKER CASTING INSTALLATION ONLY
SPECIAL	EACH	PRISMATIC RETRO-REFLECTOR

RAISED PAVEMENT MARKER GENERAL NOTES

ITEM 614 MAINTAINING TRAFFIC

NORMAL DIRECTIONAL TRAFFIC SHALL BE MAINTAINED ON THE ROADWAY AT ALL TIMES DURING THE CONSTRUCTION PERIOD IN ACCORDANCE WITH SHEETS 45–47 OF THIS CONTRACT AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS APPROVED BY THE ENGINEER.

614 MAINTAINING TRAFFIC, ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT DETAILED TRAFFIC CONTROL PLANS INCLUDING WRITTEN DESCRIPTIONS OF THE ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL PRIOR APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE DIRECTOR.

DUST CONTROL

THE CONTRACTOR SHALL PROVIDE A POSITIVE AND EFFECTIVE MEANS FOR REMOVAL OF SOLID RESIDUE RESULTING FROM THE DRY SAW BLADE CUTTING OF RAISED PAVEMENT MARKER CASTING SLOTS IN THE PAVEMENT. THE RESIDUE SHALL BE REMOVED BY VACUUM OR OTHER EFFECTIVE MEANS.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM SPECIAL RAISED PAVEMENT MARKERS 2293 EACH (State and Fed.)
ITEM SPECIAL RAISED PAVEMENT MARKERS 180 EACH (City, State and Fed.)
ITEM SPECIAL PRISMATIC RETRO-REFLECTOR 50 EACH (State and Fed.)
(SEE NOTE ON SHEET 24)

MAIN LINE

ONE WAY WHITE

63,078.75 L.F. ÷ 80 = 789 x 2 = 1,578 EACH
WESTBOUND EXTRA LANE 5400 L.F. ÷ 80 = 68 EACH
EASTBOUND EXTRA LANE 6675 L.F. ÷ 80 = 84 EACH

1550 EACH (State and Fed.)
180 EACH (City, State and Fed.)

EASTBOUND

S.R. 256 750' ÷ 20 = 38 + 2 = 40
S.R. 256 400' ÷ 20 = 20 + 2 = 22
S.R. 256 2 + (336÷40=9) + (336+475=811÷40=20) = 31
S.R. 310 410' ÷ 20 = 21 + 2 = 23
S.R. 310 2 +(336÷40=9) + (336+462=798÷40=20) = 31
S.R. 158 740' ÷ 20 = 37 + 2 = 39
S.R. 158 2 + (548÷40=14) + (548+375=923÷40=23) = 39
TRAFFIC CONTROL EAST END 922' ÷ 80 = 12
Sub Total 237

ONE WAY YELLOW

S.R. 256 2
S.R. 256 2
S.R. 256 2 + (475÷40=12) = 14
S.R. 310 2
S.R. 310 2 + (462÷40=12) = 14
S.R. 158 2
S.R. 159 2 + (375÷40=10) = 12
Sub Total 48

TWO–WAY WHITE AND RED

S.R. 256 20 + 20 = 40
S.R. 256 (51+00 ÷ 64+75) 17 + 20 =37 +37 = 74
S.R. 310 = 20
S.R 158 = 20
Sub Total 154

WESTBOUND

ONE–WAY WHITE

S.R. 256 (336'÷40=9) + (336+468=804÷40=20) + 2 = 31
S.R. 256 (750÷20=38) + 2 = 40
S.R. 310 (336÷40=9) + (336+461=797÷40=20) + 2 = 31
S.R. 310 (710÷20=36) + 2 = 38
S.R. 158 (336÷40=9) + (336+262=598÷40=15) + 2 = 26
S.R. 158 (766÷20=38) + 2 = 40
TRAFFIC CONTROL EAST END 600'÷80 = 8
Sub Total 214

ONE–WAY YELLOW

S.R. 256 (468÷40=12) + 2 = 14
S.R. 256 2
S.R. 310 (461÷40=12) + 2 = 14
S.R. 310 2
S.R. 158 (262÷40=7) + 2 = 9
S.R. 158 2
Sub Total 43

TWO–WAY WHITE AND RED

S.R. 256 20
S.R. 310 20
S.R. 158 498' ÷ 80 = 7
Sub Total 47

One Way White 180 Each (City, State and Fed.)
One Way White 1550+237+214 = 2001 Each
One Way Yellow 48+43= 91 Each
Two Way White and Red 154+47= 201 Each
Totals 2293 Each (State and Fed.)
180 Each (City, State and Fed.)

CALC. BY D.M. DATE 1-29-88
CHKD. BY R.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00

PAVEMENT ELEVATION TABLE

WESTBOUND LANES					STATION	EASTBOUND LANES				
OUTSIDE EDGE	LANE LINE NO. 2	LANE LINE NO. 1	MEDIAN EDGE	DIST		DIST	MEDIAN EDGE	LANE LINE NO. 1	LANE LINE NO. 2	OUTSIDE EDGE
840.87	841.06	841.25	841.06	30'	0+00	30'	841.06	841.25	841.06	840.87
840.99	841.18	841.37	841.18	30'	0+15	30'	841.18	841.37	841.18	840.99
841.06	841.25	841.44	841.25	30'	0+25	30'	841.25	841.44	841.25	841.06
841.27	841.46	841.65	841.46	30'	0+50	30'	841.46	841.65	841.46	841.27
841.48	841.67	841.86	841.67	30'	0+75	30'	841.67	841.86	841.67	841.48
841.71	841.90	842.09	841.90	30'	1+00	30'	841.90	842.09	841.90	841.71
841.95	842.14	842.33	842.14	30'	1+25	30'	842.14	842.33	842.14	841.95
842.20	842.39	842.58	842.39	30'	1+50	30'	842.39	842.58	842.39	842.20
842.49	842.68	842.87	842.68	30'	1+75	30'	842.68	842.87	842.68	842.49
842.80	842.99	843.18	842.99	30'	2+00	30'	842.99	843.18	842.99	842.80
842.99	843.18	843.37	843.18	30'	2+15	30'	843.18	843.37	843.18	842.99
843.12	843.31	843.50	843.31	30'	2+25	30'	843.31	843.50	843.31	843.12
843.45	843.64	843.83	843.64	30'	2+50	30'	843.64	843.83	843.64	843.45
843.78	843.97	844.16	843.97	30'	2+75	30'	843.97	844.16	843.97	843.78
844.13	844.32	844.51	844.32	30'	3+00	30'	844.32	844.51	844.32	844.13
844.49	844.68	844.87	844.68	30'	3+25	30'	844.68	844.87	844.68	844.49
844.86	845.05	845.24	845.05	30'	3+50	30'	845.05	845.24	845.05	844.86
845.25	845.44	845.63	845.44	30'	3+75	30'	845.44	845.63	845.44	845.25
845.64	845.83	846.02	845.83	30'	4+00	30'	845.83	846.02	845.83	845.64
845.88	846.07	846.26	846.07	30'	4+15	30'	846.07	846.26	846.07	845.88
846.45	846.64	846.83	846.64	30'	4+50	30'	846.64	846.83	846.64	846.45
847.26	847.45	874.64	847.45	30'	5+00	30'	847.45	874.64	847.45	847.26
848.07	848.26	848.45	848.26	30'	5+50	30'	848.26	848.45	848.26	848.07
848.88	849.07	849.26	849.07	30'	6+00	30'	849.07	849.26	849.07	848.88
849.69	849.88	850.07	849.88	30'	6+50	30'	849.88	850.07	849.88	849.69
850.50	850.69	850.88	850.69	30'	7+00	30'	850.69	850.88	850.69	850.50
851.31	851.50	851.69	851.50	30'	7+50	30'	851.50	851.69	851.50	851.31
852.12	852.31	852.50	852.31	30'	8+00	30'	852.31	852.50	852.31	852.12
852.93	853.12	853.31	853.12	30'	8+50	30'	853.12	853.31	853.12	852.93
853.74	853.93	854.12	853.93	30'	9+00	30'	853.93	854.12	853.93	853.74
854.55	854.74	854.93	854.74	30'	9+50	30'	854.74	854.93	854.74	854.55
855.36	855.55	855.74	855.55	30'	10+00	30'	855.55	855.74	855.55	855.36
856.17	856.36	856.55	856.36	30'	10+50	30'	856.36	856.55	856.36	856.17
856.57	856.76	856.95	856.76	30'	10+75	30'	856.76	856.95	856.76	856.57
856.96	857.15	857.34	857.15	30'	11+00	30'	857.15	857.34	857.15	856.96
857.34	857.53	857.72	857.53	30'	11+25	30'	857.53	857.72	857.53	857.34
857.72	857.91	858.10	857.91	30'	11+50	30	857.91	858.10	857.91	857.72
858.08	858.27	858.46	858.27	30'	11+75	30'	858.27	858.46	858.27	858.08
858.44	858.63	858.82	858.63	30'	12+00	30'	858.63	858.82	858.63	858.44
858.78	858.97	859.16	858.97	30'	12+25	30'	858.97	859.16	858.97	858.78
859.12	859.31	859.50	859.31	30'	12+50	30'	859.31	859.50	859.31	859.12
859.44	859.63	859.82	859.63	30'	12+75	30'	859.63	859.82	859.63	859.44
859.77	859.96	860.15	859.96	30'	13+00	30'	859.96	860.15	859.96	859.77
860.07	860.26	860.45	860.26	30'	13+25	30'	860.26	860.45	860.26	860.07
860.38	860.57	860.76	860.57	30'	13+50	30'	860.57	860.76	860.57	860.38
860.67	860.86	861.05	860.86	30'	13+75	30'	860.86	861.05	860.86	860.67
860.95	861.14	861.33	861.14	30'	14+00	30'	861.14	861.33	861.14	860.95
861.22	861.41	861.60	861.41	30'	14+25	30'	861.41	861.60	861.41	861.22
861.49	861.68	861.87	861.68	30'	14+50	30'	861.68	861.87	861.68	861.49
861.74	861.93	862.12	861.93	30'	14+75	30'	861.93	862.12	861.93	861.74
861.99	862.18	862.37	862.18	30'	15+00	30'	862.18	862.37	862.18	861.99
862.23	862.42	862.61	862.42	30'	15+25	30'	862.42	862.61	862.42	862.23
862.46	862.65	862.84	862.65	30'	15+50	30'	862.65	862.84	862.65	862.46
862.67	862.86	863.05	862.86	30'	15+75	30'	862.86	863.05	862.86	862.67
862.89	863.08	863.27	863.08	30'	16+00	30'	863.08	863.27	863.08	862.89
863.09	863.28	863.47	863.28	30'	16+25	30'	863.28	863.47	863.28	863.09
863.28	863.47	863.66	863.47	30'	16+50	30'	863.47	863.66	863.47	863.28
863.46	863.65	863.84	863.65	30'	16+75	30'	863.65	863.84	863.65	863.46
863.64	863.83	864.02	863.83	30'	17+00	30'	863.83	864.02	863.83	863.64
863.80	863.99	864.18	863.99	30'	17+25	30'	863.99	864.18	863.99	863.80
863.96	864.15	864.34	864.15	30'	17+50	30'	864.15	864.34	864.15	863.96
864.11	864.30	864.49	864.30	30'	17+75	30'	864.30	864.49	864.30	864.11
864.25	864.44	864.63	864.44	30'	18+00	30'	864.44	864.63	864.44	864.25
864.37	864.56	864.75	864.56	30'	18+25	30'	864.56	864.75	864.56	864.37
864.50	864.69	864.88	864.69	30'	18+50	30'	864.69	864.88	864.69	864.50
864.61	864.80	864.99	864.80	30'	18+75	30'	864.80	864.99	864.80	864.61

WESTBOUND LANES					STATION	EASTBOUND LANES				
OUTSIDE EDGE	LANE LINE NO. 2	LANE LINE NO. 1	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	LANE LINE NO. 1	LANE LINE NO. 2	OUTSIDE EDGE
864.71	864.90	865.09	864.90	30'	19+00	30'	864.90	865.09	864.90	864.71
864.80	864.99	865.18	864.99	30'	19+25	30'	864.99	865.18	864.99	864.80
864.89	865.08	865.27	865.08	30'	19+50	30'	865.08	865.27	865.08	864.89
864.96	865.15	865.34	865.15	30'	19+75	30'	865.15	865.34	865.15	864.96
865.03	865.22	865.41	865.22	30	20+00	30	865.22	865.41	865.22	865.03
865.08	865.27	865.46	865.27	30'	20+25	30'	865.27	865.46	865.27	865.08
865.13	865.32	865.51	865.32	30'	20+50	30'	865.32	865.51	865.32	865.13
865.16	865.35	865.54	865.35	30'	20+75	30'	865.35	865.54	865.35	865.16
865.19	865.38	865.57	865.38	30'	21+00	30'	865.38	865.57	865.38	865.19
865.21	865.40	865.59	865.40	30'	21+25	30'	865.40	865.59	865.40	865.21
865.23	865.42	865.61	865.42	30'	21+50	30'	865.42	865.61	865.42	865.23
865.23	865.42	865.61	865.42	30'	21+75	30'	865.42	865.61	865.42	865.23

CALC. BY DM DATE 2-28-88
CHKD. BY RM DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00

SUPERELEVATION TABLES

P.C. STA.25+35.79 △ = 21° 50' 15" LT. Dc = 1° 28' P.T. STA. 40+24.71

WESTBOUND LANES					STATION	EASTBOUND LANES				
OUTSIDE EDGE	LANE LINE NO. 2	LANE LINE NO. 1	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	LANE LINE NO. 1	LANE LINE NO. 2	OUTSIDE EDGE
865.23	865.42	865.61	865.42	30'	22+00	30'	865.42	865.61	865.42	865.23
865.22	865.41	865.60	865.39	30'	22+25	30'	865.39	865.60	865.42	865.23
865.21	865.39	865.58	865.37	30'	22+50	30'	865.37	865.57	865.41	865.24
865.18	865.36	865.55	865.34	30'	22+75	30'	865.34	865.53	865.40	865.25
865.13	865.32	865.51	865.30	30'	23+00	30'	865.30	865.49	865.41	865.27
865.06	865.25	865.44	865.25	30'	23+25	30'	865.25	865.44	865.40	865.31
864.94	865.14	865.33	865.18	30'	23+50	30'	865.18	865.37	865.37	865.37
864.80	864.98	865.17	865.11	30'	23+75	30'	865.11	865.30	865.36	865.43
864.60	864.79	864.98	865.04	30'	24+00	30'	865.04	865.23	865.35	865.48
864.40	864.60	864.79	864.95	30'	24+25	30'	864.95	865.16	865.32	865.51
864.17	864.39	864.62	864.85	30'	24+50	30'	864.85	865.08	865.31	865.54
863.93	864.20	864.47	864.74	30'	24+75	30'	864.74	865.01	865.26	865.55
863.70	864.01	864.32	864.63	30'	25+00	30'	864.63	864.94	865.25	865.56
863.44	863.79	864.15	864.50	30'	25+25	30'	864.50	864.85	865.21	865.56
863.18	863.58	863.98	864.37	30'	25+50	30'	864.37	864.76	865.16	865.56
862.92	863.35	863.79	864.23	30'	25+75	30'	864.23	864.67	865.11	865.54
862.64	863.12	863.60	864.08	30'	26+00	30'	864.08	864.56	865.04	865.52
862.36	862.88	863.40	863.92	30'	26+25	30'	863.92	864.44	864.96	865.48
862.06	862.63	863.19	863.75	30'	26+50	30'	863.75	864.31	864.87	865.44
861.76	862.36	862.97	863.57	30'	26+75	30'	863.57	864.17	864.78	865.38
861.44	862.09	862.74	863.38	30'	27+00	30'	863.38	864.02	864.67	865.32
861.12	861.80	862.50	863.18	30'	27+25	30'	863.18	863.87	864.56	865.24
860.82	861.52	862.25	862.98	30'	27+50	30'	862.98	863.71	864.43	865.15
860.55	861.27	862.02	862.76	30'	27+75	30'	862.76	863.50	864.25	864.99
860.31	861.05	861.80	862.54	30'	28+00	30'	862.54	863.28	864.03	864.77
860.07	860.81	861.56	862.30	30'	28+25	30'	862.30	863.04	863.79	864.53
859.83	860.57	861.32	862.06	30'	28+50	30'	862.06	862.82	863.55	864.29
859.58	860.32	861.07	861.81	30'	28+75	30'	861.81	862.55	863.30	864.04
859.32	860.06	860.81	861.55	30'	29+00	30'	861.55	862.29	863.04	863.78
859.05	859.79	860.54	861.28	30'	29+25	30'	861.28	862.02	862.77	863.51
858.77	859.51	860.26	861.00	30'	29+50	30'	861.00	861.74	862.49	863.23
858.49	859.23	859.98	860.72	30'	29+75	30'	860.72	861.46	862.21	862.95
858.19	858.93	859.68	860.42	30'	30+00	30'	860.42	861.16	861.91	862.65
857.88	858.62	859.37	860.11	30'	30+25	30'	860.11	860.85	861.60	862.34
857.57	858.31	859.06	859.80	30'	30+50	30'	859.80	860.54	861.29	862.03
857.25	857.99	858.74	859.48	30'	30+75	30'	859.48	860.22	860.97	861.71
856.91	857.65	858.40	859.14	30'	31+00	30'	859.14	859.88	860.63	861.37
856.57	857.31	858.06	858.80	30'	31+25	30'	858.80	859.54	860.29	861.03
856.22	856.96	857.71	858.45	30'	31+50	30'	858.45	859.19	859.94	860.68
855.86	856.60	857.35	858.09	30'	31+75	30'	858.09	858.83	859.58	860.32
855.49	856.23	856.98	857.72	30'	32+00	30'	857.72	858.46	859.21	859.95
855.12	855.86	856.61	857.35	30'	32+25	30'	857.35	858.09	858.84	859.58
854.73	855.47	856.22	856.96	30'	32+50	30'	856.96	857.70	858.45	859.19
854.33	855.07	855.82	856.56	30'	32+75	30'	856.56	857.20	858.05	858.79

P.C. STA.25+35.79 △ = 21° 50' 15" LT. Dc = 1° 28' P.T. STA. 40+24.71

WESTBOUND LANES					STATION	EASTBOUND LANES				
OUTSIDE EDGE	LANE LINE NO. 2	LANE LINE NO. 1	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	LANE LINE NO. 1	LANE LINE NO. 2	OUTSIDE EDGE
853.93	854.67	855.42	856.16	30'	33+00	30'	856.16	856.90	857.65	858.39
853.51	854.25	855.00	855.74	30'	33+25	30'	855.74	856.48	857.23	857.97
853.09	853.83	854.58	855.32	30'	33+50	30'	855.32	856.06	856.81	857.55
852.66	853.40	854.15	854.89	30'	33+75	30'	854.89	855.63	856.38	587.12
852.22	852.96	853.71	854.45	30'	34+00	30'	854.45	855.19	855.94	856.68
851.77	852.51	853.26	854.00	30'	34+25	30'	854.00	854.74	855.49	856.23
851.31	852.05	852.80	853.54	30'	34+50	30'	853.54	854.28	855.04	855.77
850.84	851.58	852.33	853.07	30'	34+75	30'	853.07	853.81	854.56	855.30
850.36	851.10	851.85	852.59	30'	35+00	30'	852.59	853.33	854.08	854.82
849.88	850.62	851.37	852.11	30'	35+25	30'	852.11	852.85	853.60	854.34
849.38	850.12	850.87	851.61	30'	35+50	30'	851.61	852.35	853.10	853.84
848.88	849.62	850.37	851.11	30'	35+75	30'	851.11	851.85	852.60	853.34
848.38	849.12	849.87	850.61	30'	36+00	30'	850.61	851.35	852.10	852.84
847.88	848.62	849.37	850.11	30'	36+25	30'	850.11	850.85	851.60	852.34
847.38	848.12	848.87	849.61	30'	36+50	30'	849.61	850.35	851.10	851.84
846.88	847.62	848.37	849.11	30'	36+75	30'	849.11	849.85	850.60	851.34
846.38	847.12	847.87	848.61	30'	37+00	30'	848.61	849.35	850.10	850.84
845.88	846.62	847.37	848.11	30'	37+25	30'	848.11	848.85	849.60	850.34
845.38	846.12	846.87	847.61	30'	37+50	30'	847.61	848.35	849.10	849.84
844.88	845.62	846.37	847.11	30'	37+75	30'	847.11	847.85	848.60	849.34
844.39	845.13	845.88	846.61	30'	38+00	30'	846.61	847.34	848.09	848.83
843.99	844.70	845.41	846.11	30'	38+25	30'	846.11	846.81	847.52	848.23
843.62	844.28	844.95	845.61	30'	38+50	30'	845.61	846.27	846.94	847.60
843.24	843.86	844.49	845.11	30'	38+75	30'	845.11	845.73	846.36	846.98
842.87	843.45	844.03	844.61	30'	39+00	30'	844.61	845.19	845.77	846.35
842.49	843.03	843.57	844.11	30'	39+25	30'	844.11	844.65	845.19	845.73
842.12	842.62	843.11	843.61	30'	39+50	30'	843.61	844.11	844.60	845.10
841.74	842.20	842.65	843.11	30'	39+75	30'	843.11	843.57	844.02	844.48
841.37	841.78	842.19	842.61	30'	40+00	30'	842.61	843.03	843.44	843.85
841.00	841.37	841.74	842.11	30'	40+25	30'	842.11	842.48	842.85	843.22
840.62	840.95	841.28	841.61	30'	40+50	30'	841.61	841.94	842.27	842.60
840.25	840.53	840.82	841.11	30'	40+75	30'	841.11	841.40	841.69	841.97
839.87	840.11	840.36	840.61	30'	41+00	30'	840.61	840.86	841.11	841.35
839.52	839.72	839.92	840.13	30'	41+25	30'	840.13	840.34	840.54	840.74
839.18	839.37	839.56	839.67	30'	41+50	30'	839.67	839.86	840.01	840.16
838.85	839.05	839.24	839.25	30'	41+75	30'	839.25	839.42	839.53	839.62
838.55	838.74	838.94	838.86	30'	42+00	30'	838.86	839.05	839.07	839.10
838.25	838.45	838.65	838.50	30'	42+25	30'	838.50	838.69	838.65	838.62
837.98	838.17	838.36	838.17	30'	42+50	30'	838.17	838.36	838.27	838.17
837.69	837.88	838.07	837.88	30'	42+75	30'	837.88	838.07	837.94	837.81
837.42	837.61	837.80	837.61	30'	43+00	30'	837.61	837.80	837.64	837.48
837.19	837.38	837.57	837.38	30'	43+25	30'	837.38	837.57	837.38	837.20
837.01	837.20	837.39	837.20	30'	43+50	30'	837.20	837.39	837.20	837.01
836.88	837.07	837.26	837.07	30'	43+75	30'	837.07	837.26	837.07	837.88
836.77	836.96	837.15	836.96	30'	44+00	30'	836.96	837.15	836.96	836.77
836.71	836.90	837.09	836.90	30'	44+18	30'	836.90	837.09	836.90	836.71

C'ALC. BY S.M DATE 2-29-88
CHKD. BY R.M DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00

PAVEMENT ELEVATION TABLES

WESTBOUND LANES					STATION	EASTBOUND LANES				
OUTSIDE EDGE	LANE LINE NO. 2	LANE LINE NO. 1	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	LANE LINE NO. 1	LANE LINE NO. 2	OUTSIDE EDGE
836.71	836.90	837.09	836.90	30'	45+82	30'	836.90	837.09	836.90	836.71
836.80	836.99	837.18	836.99	30'	46+00	30'	836.99	837.18	836.99	836.80
836.92	837.11	837.30	837.11	30'	46+25	30'	837.11	837.30	837.11	836.92
837.08	837.27	837.46	837.27	30'	46+50	30'	837.27	837.46	837.27	837.08
837.24	837.43	837.62	837.43	30'	46+75	30'	837.43	837.62	837.43	837.24
837.42	837.61	837.80	837.61	30'	47+00	30'	837.61	837.80	837.61	837.42
837.69	837.88	838.07	837.88	30'	47+25	30'	837.88	838.07	837.88	837.69
837.98	838.17	838.36	838.17	30'	47+50	30'	838.17	838.36	838.17	837.98
838.31	838.50	838.69	838.50	30'	47+75	30'	838.50	838.69	838.50	838.31
838.67	838.86	839.05	838.86	30'	48+00	30'	838.86	839.05	838.86	838.67
839.06	839.25	839.44	839.25	30'	48+25	30'	839.25	839.44	839.25	839.06
839.48	839.67	839.86	839.67	30'	48+50	30'	839.67	839.86	839.67	839.48
839.94	840.13	840.32	840.13	30'	48+75	30'	840.13	840.32	840.13	839.94
840.42	840.61	840.80	840.61	30'	49+00	30	840.61	840.80	840.61	840.42
841.42	841.61	841.80	841.61	30'	49+50	30'	841.61	841.80	841.61	841.42
842.42	842.61	842.80	842.61	30'	50+00	30'	842.61	842.80	842.61	842.42
843.42	843.61	843.80	843.61	30'	50+50	30'	843.61	843.80	843.61	843.42
844.42	844.61	844.80	844.61	30'	51+00	30'	844.61	844.80	844.61	844.42
845.42	845.61	845.80	845.61	30'	51+50	30'	845.61	845.80	845.61	845.42
846.42	846.61	846.80	846.61	30'	52+00	30'	846.61	846.80	846.61	846.42
847.42	847.61	847.80	847.61	30'	52+50	30'	847.61	847.80	847.61	847.42
848.42	848.61	848.80	848.61	30'	53+00	30'	848.61	848.80	848.61	848.42
849.42	849.61	849.80	849.61	30'	53+50	30'	849.61	849.80	849.61	849.42
850.42	850.61	850.80	850.61	30'	54+00	30'	850.61	850.80	850.61	850.42
851.42	851.61	851.80	851.61	30.71'	54+50	30'	851.61	851.80	851.61	851.42
852.44	852.61	852.80	852.61	31.43'	55+00	30'	852.61	852.80	852.61	852.42
853.46	853.61	853.80	853.61	32.14'	55+50	30'	853.61	853.80	853.61	853.42
854.47	854.61	854.80	854.61	32.86'	56+00	30'	854.61	854.80	854.61	854.42
855.48	855.61	855.80	855.61	33.57'	56+50	30'	855.61	855.80	855.61	855.42
856.49	856.61	856.80	856.61	34.29'	57+00	30'	856.61	856.80	856.61	856.42
857.50	857.61	857.80	857.61	35.00'	57+50	30'	857.61	857.80	857.61	857.42
858.51	858.61	858.80	858.61	35.71'	58+00	30'	858.61	858.80	858.61	858.42
859.52	859.61	859.80	859.61	36.43'	58+50	30'	859.61	859.80	859.61	859.42
860.53	860.61	860.80	860.61	37.14'	59+00	30'	860.61	860.80	860.61	860.42
861.55	861.61	861.80	861.61	37.86'	59+50	30'	861.61	861.80	861.61	861.42
862.56	862.61	862.80	862.61	38.57'	60+00	30'	862.61	862.80	862.61	862.42
863.57	863.61	863.80	863.61	39.29'	60+50	30'	863.61	863.80	863.61	863.42
864.58	864.61	864.80	864.61	40.00'	61+00	30'	864.61	864.80	864.61	864.42
865.59	865.61	865.80	865.61	40.71'	61+50	30'	865.61	865.80	865.61	865.42
866.68	866.69	866.88	866.69	41.43'	62+00	30'	866.69	866.88	866.69	866.50
					62+41.3	30'	867.55	867.74	867.55	867.36
	868.03	868.22	868.03	42'	62+64.8					
					64+84.5	30'	872.43	872.62	872.43	872.24
	872.71	872.90	872.71	42'	64+98.9					
	872.73	872.92	872.73	42'	65+00	30'	872.73	872.92	872.73	872.54
	873.21	873.40	873.21	42'	65+25	30'	873.21	873.40	873.21	873.02
	873.66	873.85	873.66	42'	65+50	30'	873.66	873.85	873.66	873.47
	874.10	874.29	874.10	42'	65+75	30'	874.10	874.29	874.10	873.91
	874.55	874.74	874.55	42'	66+00	30'	874.55	874.74	874.55	874.36
	875.01	875.20	875.01	42'	66+25	30'	875.01	875.20	875.01	874.82
	875.47	875.66	875.47	42'	66+50	30'	875.47	875.66	875.47	875.28
	875.92	876.11	875.92	42'	66+75	30'	875.92	876.11	875.92	875.73
	876.36	876.55	876.36	42'	67+00	30.25'	876.36	876.55	876.36	876.18
	876.79	876.98	876.79	42'	67+25	30.50'	876.79	876.98	876.79	876.61
	877.22	877.41	877.22	42'	67+50	30.75'	877.22	877.41	877.22	877.04
	877.63	877.82	877.63	42'	67+75	31.00'	877.63	877.82	877.63	877.46
	878.04	878.23	878.04	42'	68+00	31.25'	878.04	878.23	878.04	877.87

WESTBOUND LANES					STATION	EASTBOUND LANES				
OUTSIDE EDGE	LANE LINE NO. 2	LANE LINE NO. 1	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	LANE LINE NO. 1	LANE LINE NO. 2	OUTSIDE EDGE
	878.44	878.63	878.44	42.00	68+25	31.50	878.44	878.63	878.44	878.28
	878.84	879.03	878.84	42.00	68+50	31.75	878.84	879.03	878.84	878.68
	879.22	879.41	879.22	42.00	68+75	32.00	879.22	879.41	879.22	879.06
	879.60	876.79	879.60	42.00	69+00	32.25	879.60	876.79	879.60	879.45
	879.97	880.16	879.97	42.00	69+25	32.50	879.97	880.16	879.97	879.82
	880.33	880.52	880.33	42.00	69+50	32.75	880.33	880.52	880.33	880.19
	880.68	880.87	880.68	42.00	69+75	33.00	880.68	880.87	880.68	880.54
	881.03	881.22	881.03	42.00	70+00	33.25	881.03	881.22	881.03	880.89
	881.37	881.56	881.37	42.00	70+25	33.50	881.37	881.56	881.37	881.24
	881.70	881.89	881.70	42.00	70+50	33.75	881.70	881.89	881.70	881.57
	882.02	882.21	882.02	42.00	70+75	34.00	882.02	882.21	882.02	881.90
	882.34	882.53	882.34	42.00	71+00	34.25	882.34	882.53	882.34	882.22
	882.64	882.83	882.64	42.00	71+25	34.50	882.64	882.83	882.64	882.52
	882.94	883.13	882.94	42.00	71+50	34.75	882.94	883.13	882.94	882.83
	883.23	883.42	883.23	42.00	71+75	35.00	883.23	883.42	883.23	883.12
	883.52	883.71	883.52	42.00	72+00	35.25	883.52	883.71	883.52	883.41
	883.79	883.98	883.79	42.00	72+25	35.50	883.79	883.98	883.79	883.69
	884.06	884.25	884.06	42.00	72+50	35.75	884.06	884.25	884.06	883.96
	884.32	884.51	884.32	42.00	72+75	36.00	884.32	884.51	884.32	884.23
	884.57	884.76	884.57	42.00	73+00	36.25	884.57	884.76	884.57	884.48
	884.81	885.00	884.81	42.00	73+25	36.50	884.81	885.00	884.81	884.72
	885.05	885.24	885.05	42.00	73+50	36.75	885.05	885.24	885.05	884.97
	885.27	885.46	885.27	42.00	73+75	37.00	885.27	885.46	885.27	885.19
	885.49	885.68	885.49	42.00	74+00	37.25	885.49	885.68	885.49	885.42
	885.71	885.90	885.71	42.00	74+25	37.50	885.71	885.90	885.71	885.64
	885.91	886.10	885.91	42.00	74+50	37.75	885.91	886.10	885.91	885.84
	886.11	886.30	886.11	42.00	74+75	38.00	886.11	886.30	886.11	886.05
	886.29	886.48	886.29	42.00	75+00	38.25	886.29	886.48	886.29	886.23
	886.47	886.66	886.47	42.00	75+25	38.50	886.47	886.66	886.47	886.41
	886.65	886.84	886.65	42.00	75+50	38.75	886.65	886.84	886.65	886.60
	886.81	887.00	886.81	42.00	75+75	39.00	886.81	887.00	886.81	886.76
	886.97	887.16	886.97	42.00	76+00	39.25	886.97	887.16	886.97	886.93
	887.12	887.31	887.12	42.00	76+25	39.50	887.12	887.31	887.12	887.08
	887.26	887.45	887.26	42.00	76+50	39.75	887.26	887.45	887.26	887.22
	887.39	887.58	887.39	42.00	76+75	40.00	887.39	887.58	887.39	887.36
	887.52	887.71	887.52	42.00	77+00	40.25	887.52	887.71	887.52	887.49
	887.63	887.82	887.63	42.00	77+25	40.50	887.63	887.82	887.63	887.61
	887.74	887.93	887.74	42.00	77+50	40.75	887.74	887.93	887.74	887.72
	887.84	888.03	887.84	42.00	77+75	41.00	887.84	888.03	887.84	887.82
	887.94	888.13	887.94	42.00	78+00	41.25	887.94	888.13	887.94	887.93
	888.02	888.21	888.02	42.00	78+25	41.50	888.02	888.21	888.02	888.01
	888.10	888.29	888.10	42.00	78+50	41.75	888.10	888.29	888.10	888.10
	888.17	888.36	888.17	42.00	78+75	42.00	888.17	888.36	888.17	888.17
	888.23	888.42	888.23	42.00	79+00	42.00	888.23	888.42	888.23	
	888.28	888.47	888.28	42.00	79+25	42.00	888.28	888.47	888.28	
	888.33	888.52	888.33	42.00	79+50	42.00	888.33	888.52	888.33	
	888.37	888.56	888.37	42.00	79+75	42.00	888.37	888.56	888.37	
	888.40	888.59	888.40	42.00	80+00	42.00	888.40	888.59	888.40	
	888.42	888.61	888.42	42.00	80+25	42.00	888.42	888.61	888.42	
	888.44	888.63	888.44	42.00	80+50	42.00	888.44	888.63	888.44	
	888.45	888.64	888.45	42.00	80+75	42.00	888.45	888.64	888.45	
	888.44	888.63	888.44	42.00	81+00	42.00	888.44	888.63	888.44	
	888.43	888.62	888.43	42.00	81+25	42.00	888.43	888.62	888.43	
	888.42	888.61	888.42	42.00	81+50	42.00	888.42	888.61	888.42	
	888.39	888.58	888.39	42.00	81+75	42.00	888.39	888.58	888.39	
	888.36	888.55	888.36	42.00	82+00	42.00	888.36	888.55	888.36	
	888.32	888.51	888.32	42.00	82+25	42.00	888.32	888.51	888.32	
	888.27	888.46	888.27	42.00	82+50	42.00	888.27	888.46	888.27	
	888.21	888.40	888.21	42.00	82+75	42.00	888.21	888.40	888.21	
	888.15	888.34	888.15	42.00	83+00	42.00	888.15	888.34	888.15	

PAVEMENT ELEVATION TABLES

CALC. BY D.M. DATE 3-29-88
CHKD. BY D.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

34/126

FAI-70-0.00
LIC-70-0.00

P.C. STA.115+56.61 △= 22° 19' 15" LT. Dc = 1° 00' P.T. STA. 137+88.59

WESTBOUND LANES					EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.	STATION	DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
888.07	888.26	888.07	42'	83+25	42'	888.07	888.26	888.07
887.99	888.18	887.99	42'	83+50	42'	887.99	888.18	887.99
887.91	888.10	887.91	42'	83+75	42'	887.91	888.10	887.91
887.81	888.00	887.81	42'	84+00	42'	887.81	888.00	887.81
887.61	887.80	887.61	42'	84+50	42'	887.61	887.80	887.61
887.41	887.60	887.41	42'	85+00	42'	887.41	887.60	887.41
887.21	887.40	887.21	42'	85+50	42'	887.21	887.40	887.21
887.12	887.31	887.12	42'	85+75	42'	887.12	887.31	887.12
887.06	887.25	887.06	42'	86+00	42'	887.06	887.25	887.06
887.02	887.21	887.02	42'	86+25	42'	887.02	887.21	887.02
887.01	887.20	887.01	42'	86+50	42'	887.01	887.20	887.01
887.02	887.21	887.02	42'	86+75	42'	887.02	887.21	887.02
887.06	887.25	887.06	42'	87+00	42'	887.06	887.25	887.06
887.12	887.31	887.12	42'	87+25	42'	887.12	887.31	887.12
887.21	887.40	887.21	42'	87+50	42'	887.21	887.40	887.21
887.32	887.51	887.32	42'	87+75	42'	887.32	887.51	887.32
887.46	887.65	887.46	42'	88+00	42'	887.46	887.65	887.46
887.62	887.81	887.62	42'	88+25	42'	887.62	887.81	887.62
887.81	888.00	887.81	42'	88+50	42'	887.81	888.00	887.81
888.02	888.21	888.02	42'	88+75	42'	888.02	888.21	888.02
888.26	888.45	888.26	42'	89+00	42'	888.26	888.45	888.26
888.52	888.71	888.52	42'	89+25	42'	888.52	888.71	888.52
888.81	889.00	888.81	42'	89+50	42'	888.81	889.00	888.81
889.12	889.31	889.12	42'	89+75	42'	889.12	889.31	889.12
889.46	889.65	889.46	42'	90+00	42'	889.46	889.65	889.46
889.82	890.01	889.82	42'	90+25	42'	889.82	890.01	889.82
890.24	890.43	890.24	42'	90+50	42'	890.24	890.43	890.24
890.62	890.81	890.62	42'	90+75	42'	890.62	890.81	890.62
891.06	891.25	891.06	42'	91+00	42'	891.06	891.25	891.06
891.52	891.71	891.52	42'	91+25	42'	891.52	891.71	891.52
892.01	892.20	892.01	42'	91+50	42'	892.01	892.20	892.01
893.01	893.20	893.01	42'	92+00	42'	893.01	893.20	893.01
894.01	894.20	894.01	42'	92+50	42'	894.01	894.20	894.01
895.01	895.20	895.01	42'	93+00	42'	895.01	895.20	895.01
896.01	896.20	896.01	42'	93+50	42'	896.01	896.20	896.01
897.01	897.20	897.01	42'	94+00	42'	897.01	897.20	897.01
898.01	898.20	898.01	42'	94+50	42'	898.01	898.20	898.01
899.01	899.20	899.01	42'	95+00	42'	899.01	899.20	899.01
900.01	900.20	900.01	42'	95+50	42'	900.01	900.20	900.01
901.01	901.20	901.01	42'	96+00	42'	901.01	901.20	901.01
902.01	902.20	902.01	42'	96+50	42'	902.01	902.20	902.01
903.01	903.20	903.01	42'	97+00	42'	903.01	903.20	903.01
904.01	904.20	904.01	42'	97+50	42'	904.01	904.20	904.01
905.01	905.20	905.01	42'	98+00	42'	905.01	905.20	905.01
906.01	906.20	906.01	42'	98+50	42'	906.01	906.20	906.01
907.01	907.20	907.01	42'	99+00	42'	907.01	907.20	907.01
908.01	908.20	908.01	42'	99+50	42'	908.01	908.20	908.01
909.01	909.20	909.01	42'	100+00	42'	909.01	909.20	909.01
910.01	910.20	910.01	42'	100+50	42'	910.01	910.20	910.01
911.01	911.20	911.01	42'	101+00	42'	911.01	911.20	911.01
912.01	912.20	912.01	42'	101+50	42'	912.01	912.20	912.01
913.01	913.20	913.01	42'	102+00	42'	913.01	913.20	913.01
914.01	914.20	914.01	42'	102+50	42'	914.01	914.20	914.01
915.01	915.20	915.01	42'	103+00	42'	915.01	915.20	915.01
916.01	916.20	916.01	42'	103+50	42'	916.01	916.20	916.01
917.01	917.20	917.01	42'	104+00	42'	917.01	917.20	917.01
918.01	918.20	918.01	42'	104+50	42'	918.01	918.20	918.01

P.C. STA.115+56.61 △= 22° 19' 15" LT. Dc = 1° 00' P.T. STA. 137+88.59

WESTBOUND LANES					EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.	STATION	DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
919.01	919.20	919.01	42'	105+00	42'	919.01	919.20	919.01
920.01	920.20	920.01	42'	105+50	42'	920.01	920.20	920.01
921.01	921.20	921.01	42'	106+00	42'	921.01	921.20	921.01
922.01	922.20	922.01	42'	106+50	42'	922.01	922.20	922.01
923.01	923.20	923.01	42'	107+00	42'	923.01	923.20	923.01
924.01	924.20	924.01	42'	107+50	42'	924.01	924.20	924.01
925.01	925.20	925.01	42'	108+00	42'	925.01	925.20	925.01
926.01	926.20	926.01	42'	108+50	42'	926.01	926.20	926.01
927.01	927.20	927.01	42'	109+00	42'	927.01	927.20	927.01
928.01	928.20	928.01	42'	109+50	42'	928.01	928.20	928.01
929.01	929.20	929.01	42'	110+00	42'	929.01	929.20	929.01
930.01	930.20	930.01	42'	110+50	42'	930.01	930.20	930.01
931.01	931.20	931.01	42'	111+00	42'	931.01	931.20	931.01
932.01	932.20	932.01	42'	111+50	42'	932.01	932.20	932.01
933.01	933.20	933.01	42'	112+00	42'	933.01	933.20	933.01
934.01	934.20	934.01	42'	112+50	42'	934.01	934.20	934.01
935.01	935.20	935.01	42'	113+00	42'	935.01	935.20	935.01
936.01	936.20	936.01	42'	113+25	42'	936.01	936.20	936.01

SUPERELEVATION TABLES

CALC. BY D.M. DATE 3-29-88
CHKD. BY R.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

35/126

FAI-70-0.00
LIC-70-0.00

P.C. STA.115+56.61 △= 22° 19' 15" LT. Dc = 1° 00' P.T. STA. 137+88.59

WESTBOUND LANES				STATION	EASTBOUND LANES			
OL SIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST		DIST	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
936.01	936.20	936.01	42	113+50	42	936.01	936.20	936.01
936.51	936.70	936.51	42	113+75	42	936.51	936.70	936.51
936.97	937.16	937.01	42	114+00	42	937.01	937.20	937.05
937.40	937.59	937.51	42	114+25	42	937.51	937.70	937.61
937.84	938.03	938.01	42	114+50	42	938.01	938.20	938.18
938.27	938.47	938.51	42	114+75	42	938.51	938.70	938.74
938.71	938.90	939.01	42	115+00	42	939.01	939.20	939.31
939.15	939.34	939.51	42	115+25	42	939.51	939.70	939.87
939.54	939.78	940.01	42	115+50	42	940.01	940.24	940.48
939.92	940.21	940.51	42	115+75	42	940.51	940.81	941.10
940.29	940.65	941.01	42	116+00	42	941.01	941.37	941.73
940.67	941.09	941.51	42	116+25	42	941.51	941.93	942.35
941.05	941.53	942.01	42	116+50	42	942.01	942.49	942.97
941.51	942.01	942.51	42	116+75	42	942.51	943.01	943.51
942.01	942.51	943.01	42	117+00	42	943.01	943.51	944.01
942.51	943.01	943.51	42	117+25	42	943.51	944.01	944.51
943.01	943.51	944.01	42	117+50	42	944.01	944.51	945.01
943.51	944.01	944.51	42	117+75	42	944.51	945.01	945.51
944.01	944.51	945.01	42	118+00	42	945.01	945.51	946.01
944.51	945.01	945.51	42	118+25	42	945.51	946.01	946.51
945.01	945.51	946.01	42	118+50	42	946.01	946.51	947.01
945.51	946.01	946.51	42	118+75	42	946.51	947.01	947.51
946.01	946.51	947.01	42	119+00	42	947.01	947.51	948.01
946.51	947.01	947.51	42	119+25	42	947.51	948.01	948.51
947.01	947.51	948.01	42	119+50	42	948.01	948.51	949.01
947.51	948.01	948.51	42	119+75	42	948.51	949.01	949.51
948.01	948.51	949.01	42	120+00	42	949.01	949.51	950.01
948.51	949.01	949.51	42	120+25	42	949.51	950.01	950.51
949.00	949.50	950.00	42	120+50	42	950.00	950.50	951.00
949.48	949.98	950.48	42	120+75	42	950.48	950.98	951.48
949.96	950.46	950.96	42	121+00	42	950.96	951.46	951.96
950.44	950.94	951.44	42	121+25	42	951.44	951.94	952.44
950.91	951.41	951.91	42	121+50	42	951.91	952.41	952.91
951.37	951.87	952.37	42	121+75	42	952.37	952.87	953.37
951.83	952.33	952.83	42	122+00	42	952.83	953.33	953.83
952.28	952.78	953.28	42	122+25	42	953.28	953.78	954.28
952.73	953.23	953.73	42	122+50	42	953.73	954.23	954.73
953.17	953.67	954.17	42	122+75	42	954.17	954.67	955.17
953.60	954.10	954.60	42	123+00	42	954.60	955.10	955.60
954.03	954.53	955.03	42	123+25	42	955.03	955.53	956.03
954.46	954.96	955.46	42	123+50	42	955.46	955.96	956.46
954.88	955.38	955.88	42	123+75	42	955.88	956.38	956.88
955.29	955.79	956.29	42	124+00	42	956.29	956.79	957.29
955.70	956.20	956.70	42	124+25	42	956.70	957.20	957.70
956.11	956.61	957.11	42	124+50	42	957.11	957.61	958.11
956.52	957.02	957.52	42	124+75	42	957.52	958.02	958.52
956.93	957.43	957.93	42	125+00	42	957.93	958.43	958.93
957.34	957.84	958.34	42	125+25	42	958.34	958.84	959.34
957.75	958.25	958.75	42	125+50	42	958.75	959.25	959.75
958.16	958.66	959.16	42	125+75	42	959.16	959.66	960.16
958.57	959.07	959.57	42	126+00	42	959.57	960.07	960.57
958.98	959.48	959.98	42	126+25	42	959.98	960.48	960.98
959.39	959.89	960.39	42	126+50	42	960.39	960.89	961.39

P.C. STA.115+56.61 △= 22° 19' 15" LT. Dc = 1° 00' P.T. STA. 137+88.59

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST		DIST	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
959.80	960.30	960.80	42	126+75	42	960.80	961.30	961.80
960.21	960.71	961.21	42	127+00	42	961.21	961.71	962.21
960.62	961.12	961.62	42	127+25	42	961.62	962.12	962.62
961.03	961.53	962.03	42	127+50	42	962.03	962.53	963.03
961.44	961.94	962.44	42	127+75	42	962.44	962.94	963.44
961.85	962.35	962.85	42	128+00	42	962.85	963.35	963.85
962.26	962.76	963.26	42	128+25	42	963.26	963.76	964.26
962.67	963.17	963.67	42	128+50	42	963.67	964.17	964.67
963.08	963.58	964.08	42	128+75	42	964.08	964.58	965.08
963.49	963.99	964.49	42	129+00	42	964.49	964.99	965.49
963.90	964.40	964.90	42	129+25	42	964.90	965.40	965.90
964.31	964.81	965.31	42	129+50	42	965.31	965.81	966.31
964.72	965.22	965.72	42	129+75	42	965.72	966.22	966.72
965.13	965.63	966.13	42	130+00	42	966.13	966.63	967.13
965.54	966.04	966.54	42	130+25	42	966.54	967.04	967.54
965.95	966.45	966.95	42	130+50	42	966.95	967.45	967.95
966.36	966.86	967.36	42	130+75	42	967.36	967.86	968.36
966.77	967.27	967.77	42	131+00	42	967.77	968.27	968.77
967.18	967.68	968.18	42	131+25	42	968.18	968.68	969.18
967.59	968.09	968.59	42	131+50	42	968.59	969.09	969.59
968.00	968.50	969.00	42	131+75	42	969.00	969.50	970.00
968.41	968.91	969.41	42	132+00	42	969.41	969.91	970.41
968.82	969.32	969.82	42	132+25	42	969.82	970.32	970.82
969.23	969.73	970.23	42	132+50	42	970.23	970.73	971.23
969.64	970.14	970.64	42	132+75	42	970.64	971.14	971.64
970.05	970.55	971.05	42	133+00	42	971.05	971.55	972.05
970.46	970.96	971.46	42	133+25	42	971.46	971.96	972.46
970.87	971.37	971.87	42	133+50	42	971.87	972.37	972.87
971.28	971.78	972.28	42	133+75	42	972.28	972.78	973.28
971.69	972.19	972.69	42	134+00	42	972.69	973.19	973.69
972.10	972.60	973.10	42	134+25	42	973.10	973.60	974.10
972.51	973.01	973.51	42	134+50	42	973.51	974.01	974.51
972.92	973.42	973.92	42	134+75	42	973.92	974.42	974.92
973.32	973.82	974.32	42	135+00	42	974.32	974.82	975.32
973.71	974.21	974.71	42	135+25	42	974.71	975.21	975.71
974.10	974.60	975.10	42	135+50	42	975.10	975.60	976.10
974.47	974.97	975.47	42	135+75	42	975.47	975.97	976.47
974.84	975.34	975.84	42	136+00	42	975.84	976.34	976.84
975.19	975.69	976.19	42	136+25	42	976.19	976.69	977.19
975.54	976.04	976.54	42	136+50	42	976.54	977.04	977.54
975.87	976.37	976.87	42	136+75	42	976.87	977.37	977.87
976.25	976.73	977.20	42	137+00	42	977.20	977.67	978.13
976.70	977.11	977.52	42	137+25	42	977.52	977.94	978.33
977.15	977.49	977.83	42	137+50	42	977.83	978.18	978.52
977.57	977.85	978.13	42	137+75	42	978.13	978.41	978.69
977.97	978.20	978.42	42	138+00	42	978.42	978.65	978.86
978.35	978.54	978.70	42	138+25	42	978.70	978.90	979.05
978.69	978.88	978.97	42	138+50	42	978.97	979.16	979.25
979.01	979.20	979.23	42	138+75	42	979.23	979.42	979.45
979.33	979.52	979.49	42	139+00	42	979.49	979.68	979.65
979.65	979.84	979.75	42	139+25	42	979.75	979.34	979.85
979.98	980.17	980.01	42	139+50	42	980.01	988.20	980.05
980.27	980.46	980.27	42	139+75	42	980.27	980.46	980.27

PAVEMENT ELEVATION TABLES

CALC. BY. DM DATE 2-29-88
CHKD. BY. RM DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES					EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.	STATION	DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
980.53	980.72	980.53	42'	140+00	42'	980.53	980.72	980.53
981.05	981.24	981.05	42'	140+50	42'	981.05	981.24	981.05
981.57	981.76	981.57	42'	141+00	42'	981.57	981.76	981.57
982.09	982.28	982.09	42'	141+50	42'	982.09	982.28	982.09
982.61	982.80	982.61	42'	142+00	42'	982.61	982.80	982.61
983.13	983.32	983.13	42'	142+50	42'	983.13	983.32	983.13
983.65	983.84	983.65	42'	143+00	42'	983.65	983.84	983.65
983.87	984.06	983.87	42'	143+21.06	42'	983.87	984.06	983.87
				EQUATION STA.143+21.06 BACK = STA.250+00.00 AHEAD				
983.87	984.06	983.87	42'	250+00	42'	983.87	984.06	983.87
984.39	984.58	984.39	42'	250+50	42'	984.39	984.58	984.39
984.91	985.10	984.91	42'	251+00	42'	984.91	985.10	984.91
985.43	985.62	985.43	42'	251+50	42'	985.43	985.62	985.43
985.95	986.14	985.95	42'	252+00	42'	985.95	986.14	985.95
986.47	986.66	986.47	42'	252+50	42'	986.47	986.66	986.47
986.99	987.18	986.99	42'	253+00	42'	986.99	987.18	986.99
987.51	987.70	987.51	42'	253+50	42'	987.51	987.70	987.51
988.03	988.22	988.03	42'	254+00	42'	988.03	988.22	988.03
988.55	988.74	988.55	42'	254+50	42'	988.55	988.74	988.55
989.07	989.26	989.07	42'	255+00	42'	989.07	989.26	989.07
989.59	989.78	989.59	42'	255+50	42'	989.59	989.78	989.59
990.11	990.30	990.11	42'	256+00	42'	990.11	990.30	990.11
990.63	990.82	990.63	42'	256+50	42'	990.63	990.82	990.63
991.15	991.34	991.15	42'	257+00	42'	991.15	991.34	991.15
991.67	991.86	991.67	42'	257+50	42'	991.67	991.86	991.67
992.19	992.38	992.19	42'	258+00	42'	992.19	992.38	992.19
992.71	992.90	992.71	42'	258+50	42'	992.71	992.90	992.71
993.23	993.42	993.23	42'	259+00	42'	993.23	993.42	993.23
993.75	993.94	993.75	42'	259+50	42'	993.75	993.94	993.75
994.27	994.46	994.27	42'	260+00	42'	994.27	994.46	994.27
994.79	994.98	994.79	42'	260+50	42'	994.79	994.98	994.79
995.31	995.50	995.31	42'	261+00	42'	995.31	995.50	995.31
995.83	996.02	995.83	42'	261+50	42'	995.83	996.02	995.83
996.35	996.54	996.35	42'	262+00	42'	996.35	996.54	996.35
996.87	997.06	996.87	42'	262+50	42'	996.87	997.06	996.87
997.39	997.58	997.39	42'	263+00	42'	997.39	997.58	997.39
997.91	998.10	997.91	42'	263+50	42'	997.91	998.10	997.91
998.43	998.62	998.43	42'	264+00	42'	998.43	998.62	998.43
998.95	999.14	998.95	42'	264+50	42'	998.95	999.14	998.95
999.47	999.66	999.47	42'	265+00	42'	999.47	999.66	999.47
999.99	1000.18	999.99	42'	265+50	42'	999.99	1000.18	999.99
1000.51	1000.70	1000.51	42'	266+00	42'	1000.51	1000.70	1000.51
1001.03	1001.22	1001.03	42'	266+50	42'	1001.03	1001.22	1001.03
1001.55	1001.74	1001.55	42'	267+00	42'	1001.55	1001.74	1001.55
1002.07	1002.26	1002.07	42'	267+50	42'	1002.07	1002.26	1002.07
1002.59	1002.78	1002.59	42'	268+00	42'	1002.59	1002.78	1002.59
1003.11	1003.30	1003.11	42'	268+50	42'	1003.11	1003.30	1003.11
1003.63	1003.82	1003.63	42'	269+00	42'	1003.63	1003.82	1003.63
1004.20	1004.39	1004.20	42'	269+50	42'	1004.15	1004.34	1004.15
1004.79	1004.98	1004.79	42'	270+00	42'	1004.67	1004.86	1004.67
1004.95	1005.14	1004.95	42'	270+14.7				

WESTBOUND LANES					EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.	STATION	DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
				270+50	42'	1005.26	1005.45	1005.26
				271+00	42'	1005.81	1006.00	1005.81
				271+33.21	42'	1006.19	1006.38	1006.19
1007.49	1007.68	1007.49	42'	272+57.45				
1007.89	1008.08	1007.89	42'	273+00				
1008.35	1008.54	1008.35	42'	273+50				
				273+65.96	42'	1008.61	1008.80	1008.61
1008.83	1009.02	1008.83	42'	274+00	42'	1008.92	1009.11	1008.92
1009.35	1009.54	1009.35	42'	274+50	42'	1009.40	1009.59	1009.40
1009.87	1010.06	1009.87	42'	275+00	42'	1009.87	1010.06	1009.87
1010.39	1010.58	1010.39	42'	275+50	42'	1010.39	1010.58	1010.39
1010.91	1011.10	1010.91	42'	276+00	42'	1010.91	1011.10	1010.91
1011.43	1011.62	1011.43	42'	276+50	42'	1011.43	1011.62	1011.43
1011.99	1012.18	1011.99	42'	277+00	42'	1011.99	1012.18	1011.99
1012.47	1012.66	1012.47	42'	277+50	42'	1012.47	1012.66	1012.47
1012.99	1013.18	1012.99	42'	278+00	42'	1012.99	1013.18	1012.99
1013.51	1013.70	1013.51	42'	278+50	42'	1013.51	1013.70	1013.51
1014.03	1014.22	1014.03	42'	279+00	42'	1014.03	1014.22	1014.03
1014.55	1014.74	1014.55	42'	279+50	42'	1014.55	1014.74	1014.55
1015.07	1015.26	1015.07	42'	280+00	42'	1015.07	1015.26	1015.07
1015.59	1015.78	1015.59	42'	280+50	42'	1015.59	1015.78	1015.59
1016.11	1016.30	1016.11	42'	281+00	42'	1016.11	1016.30	1016.11
1016.63	1016.82	1016.63	42'	281+50	42'	1016.63	1016.82	1016.63
1017.15	1017.34	1017.15	42'	282+00	42'	1017.15	1017.34	1017.15
1017.67	1017.86	1017.67	42'	282+50	42'	1017.67	1017.86	1017.67

SUPERELEVATION TABLES

CALC. BY D.M. DATE 2-29-84
CHKD. BY D.M. DATE 3-4-84

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

P.C. STA.284+91.79 △= 43° 54' 30" RT. Dc = 1° 00' P.T. STA.328+82.62

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1018.19	1018.38	1018.19	42'	283+00	42'	1018.19	1018.38	1018.19
1018.47	1018.64	1018.45	42'	283+25	42'	1018.45	1018.62	1018.43
1018.78	1018.90	1018.71	42'	283+50	42'	1018.71	1018.82	1018.63
1019.11	1019.16	1018.97	42'	283+75	42'	1018.97	1019.02	1018.83
1019.44	1019.42	1019.23	42'	284+00	42'	1019.23	1019.21	1019.02
1019.76	1019.68	1019.49	42'	284+25	42'	1019.49	1019.41	1019.22
1020.09	1019.94	1019.75	42'	284+50	42'	1019.75	1019.61	1019.42
1020.43	1020.22	1020.01	42'	284+75	42'	1020.01	1019.80	1019.59
1020.81	1020.54	1020.27	42'	285+00	42'	1020.27	1020.00	1019.73
1021.19	1020.86	1020.53	42'	285+25	42'	1020.53	1020.20	1019.87
1021.58	1021.18	1020.79	42'	285+50	42'	1020.79	1020.40	1020.01
1021.96	1021.50	1021.05	42'	285+75	42'	1021.05	1020.60	1020.14
1022.29	1021.80	1021.31	42'	286+00	42'	1021.31	1020.82	1020.33
1022.57	1022.07	1021.57	42'	286+25	42'	1021.57	1021.07	1020.57
1022.83	1022.33	1021.83	42'	286+50	42'	1021.83	1021.33	1020.83
1023.09	1022.59	1022.09	42'	286+75	42'	1022.09	1021.59	1021.09
1023.35	1022.85	1022.35	42'	287+00	42'	1022.35	1021.85	1021.35
1023.61	1023.11	1022.61	42'	287+25	42'	1022.61	1022.11	1021.61
1023.87	1023.37	1022.87	42'	287+50	42'	1022.87	1022.37	1021.87
1024.13	1023.63	1023.13	42'	287+75	42'	1023.13	1022.63	1022.13
1024.39	1023.89	1023.39	42'	288+00	42'	1023.39	1022.89	1022.39
1024.65	1024.15	1023.65	42'	288+25	42'	1023.65	1023.15	1022.65
1024.91	1024.41	1023.91	42'	288+50	42'	1023.91	1023.41	1022.91
1025.17	1024.67	1024.17	42'	288+75	42'	1024.17	1023.67	1023.17
1025.43	1024.93	1024.43	42'	289+00	42'	1024.43	1023.93	1023.43
1025.69	1025.19	1024.69	42'	289+25	42'	1024.69	1024.19	1023.69
1025.95	1025.45	1024.95	42'	289+50	42'	1024.95	1024.45	1023.95
1026.21	1025.71	1025.21	42'	289+75	42'	1025.21	1024.71	1024.21
1026.47	1025.97	1025.47	42'	290+00	42'	1025.47	1024.97	1024.47
1026.73	1026.23	1025.73	42'	290+25	42'	1025.73	1025.23	1024.73
1026.99	1026.49	1025.99	42'	290+50	42'	1025.99	1025.49	1024.99
1027.25	1026.75	1026.25	42'	290+75	42'	1026.25	1025.75	1025.25
1027.51	1027.01	1026.51	42'	291+00	42'	1026.51	1026.01	1025.51
1027.77	1027.27	1026.77	42'	291+25	42'	1026.77	1026.27	1025.77
1028.03	1027.53	1027.03	42'	291+50	42'	1027.03	1026.53	1026.03
1028.29	1027.79	1027.29	42'	291+75	42'	1027.29	1026.79	1026.29
1028.55	1028.05	1027.55	42'	292+00	42'	1027.55	1027.05	1026.55
1028.81	1028.31	1027.81	42'	292+25	42'	1027.81	1027.31	1026.81
1029.07	1028.57	1028.07	42'	292+50	42'	1028.07	1027.57	1027.07
1029.33	1028.83	1028.33	42'	292+75	42'	1028.33	1027.83	1027.33
1029.59	1029.09	1028.59	42'	293+00	42'	1028.59	1028.09	1027.59
1029.85	1029.35	1028.85	42'	293+25	42'	1028.85	1028.35	1027.85
1030.10	1029.60	1029.10	42'	293+50	42'	1029.10	1028.60	1028.10
1030.35	1029.85	1029.35	42'	293+75	42'	1029.35	1028.85	1028.35
1030.60	1030.10	1029.60	42'	294+00	42'	1029.60	1029.10	1028.60
1030.84	1030.34	1029.84	42'	294+25	42'	1029.84	1029.34	1028.84
1031.08	1030.58	1030.08	42'	294+50	42'	1030.08	1029.58	1029.08
1031.32	1030.82	1030.32	42'	294+75	42'	1030.32	1029.82	1029.32
1031.55	1031.05	1030.55	42'	295+00	42'	1030.55	1030.05	1029.55
1031.78	1031.28	1030.78	42'	295+25	42'	1030.78	1030.28	1029.78
1032.00	1031.50	1031.00	42'	295+50	42'	1031.00	1030.50	1030.00
1032.22	1031.72	1031.22	42'	295+75	42'	1031.22	1030.72	1030.22
1032.44	1031.94	1031.44	42'	296+00	42'	1031.44	1030.94	1030.44
1032.65	1032.15	1031.65	42'	296+25	42'	1031.65	1031.15	1030.65
1032.86	1032.36	1031.86	42'	296+50	42'	1031.86	1031.36	1030.86
1033.07	1032.57	1032.07	42'	296+75	42'	1032.07	1031.57	1031.07
1033.27	1032.77	1032.27	42'	297+00	42'	1032.27	1031.77	1031.27
1033.47	1032.97	1032.47	42'	297+25	42'	1032.47	1031.97	1031.47
1033.67	1033.17	1032.67	42'	297+50	42'	1032.67	1032.17	1031.67
1033.87	1033.37	1032.87	42'	297+75	42'	1032.87	1032.37	1031.87
1034.07	1033.57	1033.07	42'	298+00	42'	1033.07	1032.57	1032.07
1034.27	1033.77	1033.27	42'	298+25	42'	1033.27	1032.77	1032.27
1034.47	1033.97	1033.47	42'	298+50	42'	1033.47	1032.97	1032.47
1034.67	1034.17	1033.67	42'	298+75	42'	1033.67	1033.17	1032.67
1034.87	1034.37	1033.87	42'	299+00	42'	1033.87	1033.37	1032.87
1035.07	1034.57	1034.07	42'	299+25	42'	1034.07	1033.57	1033.07
1035.27	1034.77	1034.27	42'	299+50	42'	1034.27	1033.77	1033.27
1035.47	1034.97	1034.47	42'	299+75	42'	1034.47	1033.97	1033.47

P.C. STA.284+91.79 △= 43° 54' 30" RT. Dc = 1° 00' P.T. STA.328+82.62

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST		DIST	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1035.67	1035.17	1034.67	42'	300+00	42'	1034.67	1034.17	1033.67
1035.87	1035.37	1034.87	42'	300+25	42'	1034.87	1034.37	1033.87
1036.07	1035.57	1035.07	42'	300+50	42'	1035.07	1034.57	1034.07
1036.27	1035.77	1035.27	42'	300+75	42'	1035.27	1034.77	1034.27
1036.47	1035.97	1035.47	42'	301+00	42'	1035.47	1034.97	1034.47
1036.67	1036.17	1035.67	42'	301+25	42'	1035.67	1035.17	1034.67
1036.87	1036.37	1035.87	42'	301+50	42'	1035.87	1035.37	1034.87
1037.07	1036.57	1036.07	42'	301+75	42'	1036.07	1035.57	1035.07
1037.27	1036.77	1036.27	42'	302+00	42'	1036.27	1035.77	1035.27
1037.47	1036.97	1036.47	42'	302+25	42'	1036.47	1035.97	1035.47
1037.67	1037.17	1036.67	42'	302+50	42'	1036.67	1036.17	1035.67
1037.87	1037.37	1036.87	42'	302+75	42'	1036.87	1036.37	1035.87
1038.07	1037.57	1037.07	42'	303+00	42'	1037.07	1036.57	1036.07
1038.27	1037.77	1037.27	42'	303+25	42'	1037.27	1036.77	1036.27
1038.47	1037.97	1037.47	42'	303+50	42'	1037.47	1036.97	1036.47
1038.67	1038.17	1037.67	42'	303+75	42'	1037.67	1037.17	1036.67
1038.87	1038.37	1037.87	42'	304+00	42'	1037.87	1037.37	1036.87
1039.07	1038.57	1038.07	42'	304+25	42'	1038.07	1037.57	1037.07
1039.27	1038.77	1038.27	42'	304+50	42'	1038.27	1037.77	1037.27
1039.47	1038.97	1038.47	42'	304+75	42'	1038.47	1037.97	1037.47
1039.67	1039.17	1038.67	42'	305+00	42'	1038.67	1038.17	1037.67
1039.87	1039.37	1038.87	42'	305+25	42'	1038.87	1038.37	1037.87
1040.07	1039.57	1039.07	42'	305+50	42'	1039.07	1038.57	1038.07
1040.27	1039.77	1039.27	42'	305+75	42'	1039.27	1038.77	1038.27
1040.47	1039.97	1039.47	42'	306+00	42'	1039.47	1038.97	1037.47
1040.67	1040.17	1039.67	42'	306+25	42'	1039.67	1039.17	1038.67
1040.87	1040.37	1039.87	42'	306+50	42'	1039.87	1039.37	1038.87
1041.07	1040.57	1040.07	42'	306+75	42'	1040.07	1039.57	1039.07
1041.27	1040.77	1040.27	42'	307+00	42'	1040.27	1039.77	1039.27
1041.47	1040.97	1040.47	42'	307+25	42'	1040.47	1039.97	1039.47
1041.67	1041.17	1040.67	42'	307+50	42'	1040.67	1040.17	1039.67
1041.87	1041.37	1040.87	42'	307+75	42'	1040.87	1040.37	1039.87
1042.07	1041.57	1041.07	42'	308+00	42'	1041.07	1040.57	1040.07
1042.27	1041.77	1041.27	42'	308+25	42'	1041.27	1040.77	1040.27
1042.47	1041.97	1041.47	42'	308+50	42'	1041.47	1040.97	1040.47
1042.67	1042.17	1041.67	42'	308+75	42'	1041.67	1041.17	1040.67
1042.87	1042.37	1041.87	42'	309+00	42'	1041.87	1041.37	1040.87
1043.07	1042.57	1042.07	42'	309+25	42'	1042.07	1041.57	1041.07
1043.27	1042.77	1042.27	42'	309+50	42'	1042.27	1041.77	1041.27
1043.47	1042.97	1042.47	42'	309+75	42'	1042.47	1041.97	1041.47
1043.67	1043.17	1042.67	42'	310+00	42'	1042.67	1042.17	1041.67
1043.87	1043.37	1042.87	42'	310+25	42'	1042.87	1042.37	1041.87
1044.07	1043.57	1043.07	42'	310+50	42'	1043.07	1042.57	1042.07
1044.27	1043.77	1043.27	42'	310+75	42'	1043.27	1042.77	1042.27
1044.47	1043.97	1043.47	42'	311+00	42'	1043.47	1042.97	1042.47
1044.67	1044.17	1043.67	42'	311+25	42'	1043.67	1043.17	1042.67
1044.87	1044.37	1043.87	42'	311+50	42'	1043.87	1043.37	1042.87
1045.07	1044.57	1044.07	42'	311+75	42'	1044.07	1043.57	1043.07
1045.27	1044.77	1044.27	42'	312+00	42'	1044.27	1043.77	1043.27
1045.47	1044.97	1044.47	42'	312+25	42'	1044.47	1043.97	1043.47
1045.67	1045.17	1044.67	42'	312+50	42'	1044.67	1044.17	1043.67
1045.87	1045.37	1044.87	42'	312+75	42'	1044.87	1044.37	1043.87
1046.07	1045.57	1045.07	42'	313+00	42'	1045.07	1044.57	1044.07
1046.27	1045.77	1045.27	42'	313+25	42'	1045.27	1044.77	1044.27
1046.47	1045.97	1045.47	42'	313+50	42'	1045.47	1044.97	1044.47
1046.67	1046.17	1045.67	42'	313+75	42'	1045.67	1045.17	1044.67
1046.87	1046.37	1045.87	42'	314+00	42'	1045.87	1045.37	1044.87
1047.07	1046.57	1046.07	42'	314+25	42'	1046.07	1045.57	1045.07
1047.27	1046.77	1046.27	42'	314+50	42'	1046.27	1045.77	1045.27
1047.47	1046.97	1046.47	42'	314+75	42'	1046.47	1045.97	1045.47
1047.67	1047.17	1046.67	42'	315+00	42'	1046.67	1046.17	1045.67
1047.87	1147.37	1046.87	42'	315+25	42'	1046.87	1046.37	1045.87
1048.07	1047.57	1047.07	42'	315+50	42'	1047.07	1046.57	1046.07
1048.27	1047.77	1047.27	42'	315+75	42'	1047.27	1046.77	1046.27
1048.47	1047.97	1047.47	42'	316+00	42'	1047.47	1046.97	1046.47
1048.67	1048.17	1047.67	42'	316+25	42'	1047.67	1047.17	1046.67
1048.87	1048.37	1047.87	42'	316+50	42'	1047.87	1047.37	1046.87
1049.07	1048.57	1048.07	42'	316+75	42'	1048.07	1047.57	1047.07

SUPERELEVATION TABLES

CALC. BY D.M. DATE 2-29-88
CHKD. BY R.M. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

P.C. STA. 284+91.79 △= 43° 54' 30" RT. Dc = 1° 00' P.T. STA. 328+82.62

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1049.27	1048.77	1048.27	42'	317+00	42'	1048.27	1047.77	1047.27
1049.47	1048.97	1048.47	42'	317+25	42'	1048.47	1047.97	1047.47
1049.67	1049.17	1048.67	42'	317+50	42'	1048.67	1048.17	1047.67
1049.87	1049.37	1048.87	42'	317+75	42'	1048.87	1048.37	1047.87
1050.07	1049.57	1049.07	42'	318+00	42'	1049.07	1048.57	1048.07
1050.27	1049.77	1049.27	42'	318+25	42'	1049.27	1048.77	1048.27
1050.46	1049.96	1049.46	42'	318+50	42'	1049.46	1048.96	1048.46
1050.64	1050.14	1049.64	42'	318+75	42'	1049.64	1049.14	1048.64
1050.82	1050.32	1049.82	42'	319+00	42'	1049.82	1049.32	1048.82
1050.99	1050.49	1049.99	42'	319+25	42'	1049.99	1049.49	1048.99
1051.16	1050.66	1050.16	42'	319+50	42'	1050.16	1049.66	1049.16
1051.32	1050.82	1050.32	42'	319+75	42'	1050.32	1049.82	1049.32
1051.47	1050.97	1050.47	42'	320+00	42'	1050.47	1049.97	1049.47
1051.62	1051.12	1050.62	42'	320+25	42'	1050.62	1050.12	1049.62
1051.76	1051.26	1050.76	42'	325+50	42'	1050.76	1050.26	1049.76
1051.89	1051.39	1050.89	42'	320+75	42'	1050.89	1050.39	1049.89
1052.02	1051.52	1051.02	42'	321+00	42'	1051.02	1050.52	1050.02
1052.14	1051.64	1051.14	42'	321+25	42'	1051.14	1050.64	1050.14
1052.26	1051.76	1051.26	42'	321+50	42'	1051.26	1050.76	1050.26
1052.37	1051.87	1051.37	42'	321+75	42'	1051.37	1050.87	1050.37
1052.47	1051.97	1051.47	42'	322+00	42'	1051.47	1050.97	1050.47
1052.57	1052.07	1051.57	42'	322+25	42'	1051.57	1051.07	1050.57
1052.67	1052.17	1051.67	42'	322+50	42'	1051.67	1051.17	1050.67
1052.77	1052.27	1051.77	42'	322+75	42'	1051.77	1051.27	1050.77
1052.87	1052.37	1051.87	42'	323+00	42'	1051.87	1051.37	1050.87
1052.97	1052.47	1051.97	42'	323+25	42'	1051.97	1051.47	1050.97
1053.07	1052.57	1052.07	42'	323+50	42'	1052.07	1051.57	1051.07
1053.17	1052.67	1052.17	42'	323+75	42'	1052.17	1051.67	1051.17
1053.27	1052.77	1052.27	42'	324+00	42'	1052.27	1051.77	1051.27
1053.37	1052.87	1052.37	42'	324+25	42'	1052.37	1051.87	1051.37
1053.47	1052.97	1052.47	42'	324+50	42'	1052.47	1051.97	1051.47
1053.57	1033.07	1052.57	42'	324+75	42'	1052.57	1052.07	1051.57
1053.67	1053.17	1052.67	42'	325+00	42'	1052.67	1052.17	1051.67
1053.77	1053.27	1052.77	42'	325+25	42'	1052.77	1052.27	1051.77
1053.87	1053.37	1052.87	42'	325+50	42'	1052.87	1052.37	1051.87
1053.97	1053.47	1052.97	42'	325+75	42'	1052.97	1052.47	1051.97
1054.07	1053.57	1053.07	42'	326+00	42'	1053.07	1052.57	1052.07
1054.17	1053.67	1053.17	42'	326+25	42'	1053.17	1052.67	1052.17
1054.27	1053.77	1053.27	42'	326+50	42'	1053.27	1052.77	1052.27
1054.37	1053.87	1053.37	42'	326+75	42'	1053.37	1052.87	1052.37
1054.47	1053.97	1053.47	42'	327+00	42'	1053.47	1052.97	1052.47
1054.57	1054.07	1053.57	42'	327+25	42'	1053.57	1053.07	1052.57
1054.67	1054.17	1053.67	42'	327+50	42'	1053.67	1053.17	1052.67
1054.76	1054.26	1053.77	42'	327+75	42'	1053.77	1053.28	1052.78
1054.78	1054.32	1053.87	42'	328+00	42'	1053.87	1053.42	1052.96
1054.76	1054.36	1053.97	42'	328+25	42'	1053.97	1053.58	1053.18
1054.73	1054.40	1054.07	42'	328+50	42'	1054.07	1053.74	1053.41
1054.71	1054.44	1054.17	42'	328+75	42'	1054.17	1053.90	1053.63
1054.69	1054.48	1054.27	42'	329+00	42'	1054.27	1054.06	1053.85
1054.70	1054.56	1054.37	42'	329+25	42'	1054.37	1054.23	1054.04
1054.74	1054.66	1054.47	42'	329+50	42'	1054.47	1054.39	1054.20
1454.77	1054.76	1054.57	42'	329+75	42'	1054.57	1054.55	1054.36
1054.81	1054.86	1054.67	42'	330+00	42'	1054.67	1054.72	1054.53
1054.85	1054.96	1054.77	42'	330+25	42'	1054.77	1054.88	1054.69
1054.89	1055.06	1054.87	42'	330+50	42'	1054.87	1055.04	1054.85
1054.97	1055.16	1054.97	42'	330+75	42'	1054.97	1055.16	1054.97
1055.07	1055.26	1055.07	42'	331+00	42'	1055.07	1055.26	1055.07

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE

PAVEMENT ELEVATION TABLES

CALC. BY D.M DATE 1-29-88
CHKD. BY R.M DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

39/126

FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1055.27	1055.46	1055.27	42'	331+50	42'	1055.27	1055.46	1055.27
1055.47	1055.66	1055.47	42'	332+00	42'	1055.47	1055.66	1055.47
1055.67	1055.86	1055.67	42'	332+50	42'	1055.67	1055.86	1055.67
1055.87	1056.06	1055.87	42'	333+00	42'	1055.87	1056.06	1055.87
1056.07	1056.26	1056.07	42'	333+50	42'	1056.07	1056.26	1056.07
1056.27	1056.46	1056.27	42'	334+00	42'	1056.27	1056.46	1056.27
1056.47	1056.66	1056.47	42'	334+50	42'	1056.47	1056.66	1056.47
1056.67	1056.86	1056.67	42'	335+00	42'	1056.67	1056.86	1056.67
1056.87	1057.06	1056.87	42'	335+50	42'	1056.87	1057.06	1056.87
1057.07	1057.26	1057.07	42'	336+00	42'	1057.07	1057.26	1057.07
1057.27	1057.46	1057.27	42'	336+50	42'	1057.27	1057.46	1057.27
1057.36	1057.55	1057.36	42'	336+75	42'	1057.36	1057.55	1057.36
1057.44	1057.63	1057.44	42'	337+00	42'	1057.44	1057.63	1057.44
1057.50	1057.69	1057.50	42'	337+25	42'	1057.50	1057.69	1057.50
1057.55	1057.74	1057.55	42'	337+50	42'	1057.55	1057.74	1057.55
1057.57	1057.76	1057.57	42'	337+75	42'	1057.57	1057.76	1057.57
1057.59	1057.78	1057.59	42'	338+00	42'	1057.59	1057.78	1057.59
1057.59	1057.78	1057.59	42'	338+25	42'	1057.59	1057.78	1057.59
1057.57	1057.76	1057.57	42'	338+50	42'	1057.57	1057.76	1057.57
1057.54	1057.73	1057.54	42'	338+75	42'	1057.54	1057.73	1057.54
1057.49	1057.68	1057.49	42'	339+00	42'	1057.49	1057.68	1057.49
1057.42	1057.61	1057.42	42'	339+25	42'	1057.42	1057.61	1057.42
1057.35	1057.54	1057.35	42'	339+50	42'	1057.35	1057.54	1057.35
1057.25	1057.44	1057.25	42'	339+75	42'	1057.25	1057.44	1057.25
1057.14	1057.33	1057.14	42'	340+00	42'	1057.14	1057.33	1057.14
1057.01	1057.20	1057.01	42'	340+25	42'	1057.01	1057.20	1057.01
1056.87	1057.06	1056.87	42'	340+50	42'	1056.87	1057.06	1056.87
1056.57	1056.76	1056.57	42'	341+00	42'	1056.57	1056.76	1056.57
1056.27	1056.46	1056.27	42'	341+50	42'	1056.27	1056.46	1056.27
1055.97	1056.16	1055.97	42'	342+00	42'	1055.97	1056.16	1055.97
1055.67	1055.86	1055.67	42'	342+50	42'	1055.67	1055.86	1055.67
1055.37	1055.56	1055.37	42'	343+00	42'	1055.37	1055.56	1055.37
1055.07	1055.26	1055.07	42'	343+50	42'	1055.07	1055.26	1055.07
1054.77	1054.96	1054.77	42'	344+00	42'	1054.77	1054.96	1054.77
1054.47	1054.66	1054.47	42'	344+50	42'	1054.47	1054.66	1054.47
1054.17	1054.36	1054.17	42'	345+00	42'	1054.17	1054.36	1054.17
1053.87	1054.06	1053.87	42'	345+50	42'	1053.87	1054.06	1053.87
1053.57	1053.76	1053.57	42'	346+00	42'	1053.57	1053.76	1053.57
1053.27	1053.46	1053.27	42'	346+50	42'	1053.27	1053.46	1053.27
1052.97	1053.16	1052.97	42'	347+00	42'	1052.97	1053.16	1052.97
1052.67	1052.86	1052.67	42'	347+50	42'	1052.67	1052.86	1052.67
1052.37	1052.56	1052.37	42'	348+00	42'	1052.37	1052.56	1052.37
1052.07	1052.26	1052.07	42'	348+50	42'	1052.07	1052.26	1052.07
1051.77	1051.96	1051.77	42'	349+00	42'	1051.77	1051.96	1051.77
1051.47	1051.66	1051.47	42'	349+50	42'	1051.47	1051.66	1051.47
1051.17	1051.36	1051.17	42'	350+00	42'	1051.17	1051.36	1051.17
1050.87	1051.06	1050.87	42'	350+50	42'	1050.87	1051.06	1050.87
1050.57	1050.76	1050.57	42'	351+00	42'	1050.57	1050.76	1050.57
1050.43	1050.62	1050.43	42'	351+25	42'	1050.43	1050.62	1050.43
1050.30	1050.49	1050.30	42'	351+50	42'	1050.30	1050.49	1050.30
1050.19	1050.38	1050.19	42'	351+75	42'	1050.19	1050.38	1050.19
1050.09	1050.28	1050.09	42'	352+00	42'	1050.09	1050.28	1050.09
1050.02	1050.21	1050.02	42'	352+25	42'	1050.02	1050.21	1050.02
1049.95	1050.14	1049.95	42'	352+50	42'	1049.95	1050.14	1049.95
1049.90	1050.09	1049.90	42'	352+75	42'	1049.90	1050.09	1049.90
1049.87	1050.06	1049.87	42'	353+00	42'	1049.87	1050.06	1049.87
1049.85	1050.04	1049.85	42'	353+25	42'	1049.85	1050.04	1049.85
1049.85	1050.04	1049.85	42'	353+50	42'	1049.85	1050.04	1049.85
1049.87	1050.06	1049.87	42'	353+75	42'	1049.87	1050.06	1049.87

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1049.89	1050.08	1049.89	42'	354+00	42'	1049.89	1050.08	1049.89
1049.94	1050.13	1049.94	42'	354+25	42'	1049.94	1050.13	1049.94
1050.00	1050.19	1050.00	42'	354+50	42'	1050.00	1050.19	1050.00
1050.08	1050.27	1050.08	42'	354+75	42'	1050.08	1050.27	1050.08
1050.17	1050.36	1050.17	42'	355+00	42'	1050.17	1050.36	1050.17
1050.37	1050.56	1050.37	42'	355+50	42'	1050.37	1050.56	1050.37
1050.57	1050.76	1050.57	42'	356+00	42'	1050.57	1050.76	1050.57
1050.77	1050.96	1050.77	42'	356+50	42'	1050.77	1050.96	1050.77
1050.97	1051.16	1050.97	42'	357+00	42'	1050.97	1051.16	1050.97
1051.17	1051.36	1051.17	42'	357+50	42'	1051.17	1051.36	1051.17
1051.37	1051.56	1051.37	42'	358+00	42'	1051.37	1051.56	1051.37
1051.57	1051.76	1051.57	42'	358+50	42'	1051.57	1051.76	1051.57
1051.77	1051.96	1051.77	42'	359+00	42'	1051.77	1051.96	1051.77
1051.97	1052.16	1051.97	42'	359+50	42'	1051.97	1052.16	1051.97
1052.17	1052.36	1052.17	42'	360+00	42'	1052.17	1052.36	1052.17
1052.37	1052.56	1052.37	42'	360+50	42'	1052.37	1052.56	1052.37
1052.57	1052.76	1052.57	42'	361+00	42'	1052.57	1052.76	1052.57
1052.77	1052.96	1052.77	42'	361+50	42'	1052.77	1052.96	1052.77
1052.97	1053.16	1052.97	42'	362+00	42'	1052.97	1053.16	1052.97
1053.17	1053.36	1053.17	42'	362+50	42'	1053.17	1053.36	1053.17
1053.37	1053.56	1053.37	42'	363+00	42'	1053.37	1053.56	1053.37
1053.57	1053.76	1053.57	42'	363+50	42'	1053.57	1053.76	1053.57
1053.77	1053.96	1053.77	42'	364+00	42'	1053.77	1053.96	1053.77
1053.97	1054.16	1053.97	42'	364+50	42'	1053.97	1054.16	1053.97
1054.17	1054.36	1054.17	42'	365+00	42'	1054.17	1054.36	1054.17
1054.37	1054.56	1054.37	42'	365+50	42'	1054.37	1054.56	1054.37
1054.57	1054.76	1054.57	42'	366+00	42'	1054.57	1054.76	1054.57
1054.77	1054.96	1054.77	42'	366+50	42'	1054.77	1054.96	1054.77
1054.97	1055.16	1054.97	42'	367+00	42'	1054.97	1055.16	1054.97
1055.17	1055.36	1055.17	42'	367+50	42'	1055.17	1055.36	1055.17
1055.37	1055.56	1055.37	42'	368+00	42'	1055.37	1055.56	1055.37
1055.57	1055.76	1055.57	42'	368+50	42'	1055.57	1055.76	1055.57
1055.77	1055.96	1055.77	42'	369+00	42'	1055.77	1055.96	1055.77
1055.97	1056.16	1055.97	42'	369+50	42'	1055.97	1056.16	1055.97
1056.17	1056.36	1056.17	42'	370+00	42'	1056.17	1056.36	1056.17
1056.37	1056.56	1056.37	42'	370+50	42'	1056.37	1056.56	1056.37
1056.57	1056.76	1056.57	42'	371+00	42'	1056.57	1056.76	1056.57
1056.77	1056.96	1056.77	42'	371+50	42'	1056.77	1056.96	1056.77
1056.97	1057.16	1056.97	42'	372+00	42'	1056.97	1057.16	1056.97
1057.17	1057.36	1057.17	42'	372+50	42'	1057.17	1057.36	1057.17
1057.37	1057.56	1057.37	42'	373+00	42'	1057.37	1057.56	1057.37
1057.57	1057.76	1057.57	42'	373+50	42'	1057.57	1057.76	1057.57
1057.77	1057.96	1057.77	42'	374+00	42'	1057.77	1057.96	1057.77
1057.97	1058.16	1057.97	42'	374+50	42'	1057.97	1058.16	1057.97
1058.17	1058.36	1058.17	42'	375+00	42'	1058.17	1058.36	1058.17
1058.37	1058.56	1058.37	42'	375+50	42'	1058.37	1058.56	1058.37
1058.57	1058.76	1058.57	42'	376+00	42'	1058.57	1058.76	1058.57
1058.77	1058.96	1058.77	42'	376+50	42'	1058.77	1058.96	1058.77
1058.97	1059.16	1058.97	42'	377+00	42'	1058.97	1059.16	1058.97
1059.17	1059.36	1059.17	42'	377+50	42'	1059.17	1059.36	1059.17
1059.37	1059.56	1059.37	42'	378+00	42'	1059.37	1059.56	1059.37
1059.57	1059.76	1059.57	42'	378+50	42'	1059.57	1059.76	1059.57
1059.77	1059.96	1059.77	42'	379+00	42'	1059.77	1059.96	1059.77
1059.97	1060.16	1059.97	42'	379+50	42'	1059.97	1060.16	1059.97
1060.17	1060.36	1060.17	42'	380+00	42'	1060.17	1060.36	1060.17
1060.37	1060.56	1060.37	42'	380+50	42'	1060.37	1060.56	1060.37
1060.57	1060.76	1060.57	42'	381+00	42'	1060.57	1060.76	1060.57
1060.77	1060.96	1060.77	42'	381+50	42'	1060.77	1060.96	1060.77

PAVEMENT ELEVATION TABLES

CALC. BY D.M. DATE 2-29-88
CHKD. BY R.W. DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1060.97	1061.16	1060.97	42'	382+00	42'	1060.97	1061.16	1060.97
1061.17	1061.36	1061.17	42'	382+50	42'	1061.17	1061.36	1061.17
1061.37	1061.56	1061.37	42'	383+00	42'	1061.37	1061.56	1061.37
1061.57	1061.76	1061.57	42'	383+50	42'	1061.57	1061.76	1061.57
1061.77	1061.96	1061.77	42'	384+00	42'	1061.77	1061.96	1061.77
1061.97	1062.16	1061.97	42'	384+50	42'	1061.97	1062.16	1061.97
1062.17	1062.36	1062.17	42'	385+00	42'	1062.17	1062.36	1062.17
1062.37	1062.56	1062.37	42'	385+50	42'	1062.37	1062.56	1062.37
1062.57	1062.76	1062.57	42'	386+00	42'	1062.57	1062.76	1062.57
1062.77	1062.96	1062.77	42'	386+50	42'	1062.77	1062.96	1062.77
1062.97	1063.16	1062.97	42'	387+00	42'	1062.97	1063.16	1062.97
1063.17	1063.36	1063.17	42'	387+50	42'	1063.17	1063.36	1063.17
1063.37	1063.56	1063.37	42'	388+00	42'	1063.37	1063.56	1063.37
1063.57	1063.76	1063.57	42'	388+50	42'	1063.57	1063.76	1063.57
1063.77	1063.96	1063.77	42'	389+00	42'	1063.77	1063.96	1063.77
1063.97	1064.16	1063.97	42'	389+50	42'	1063.97	1064.16	1063.97
1064.17	1064.36	1064.17	42'	390+00	42'	1064.17	1064.36	1064.17
1064.37	1064.56	1064.37	42'	390+50	42'	1064.37	1064.56	1064.37
1064.57	1064.76	1064.57	42'	391+00	42'	1064.57	1064.76	1064.57
1064.77	1064.96	1064.77	42'	391+50	42'	1064.77	1064.96	1064.77
1064.97	1065.16	1064.97	42'	392+00	42'	1064.97	1065.16	1064.97
1065.17	1065.36	1065.17	42'	392+50	42'	1065.17	1065.36	1065.17
1065.37	1065.56	1065.37	42'	393+00	42'	1065.37	1065.56	1065.37
1065.57	1065.76	1065.57	42'	393+50	42'	1065.57	1065.76	1065.57
1065.77	1065.96	1065.77	42'	394+00	42'	1065.77	1065.96	1065.77
1065.97	1066.16	1065.97	42'	394+50	42'	1065.97	1066.16	1065.97
1066.17	1066.36	1066.17	42'	395+00	42'	1066.17	1066.36	1066.17
1066.37	1066.56	1066.37	42'	395+50	42'	1066.37	1066.56	1066.37
1066.57	1066.76	1066.57	42'	396+00	42'	1066.57	1066.76	1066.57
1066.77	1066.96	1066.77	42'	396+50	42'	1066.77	1066.96	1066.77
1066.97	1067.16	1066.97	42'	397+00	42'	1066.97	1067.16	1066.97
1067.17	1067.36	1067.17	42'	397+50	42'	1067.17	1067.36	1067.17
1067.37	1067.56	1067.37	42'	398+00	42'	1067.37	1067.56	1067.37
1067.57	1067.76	1067.57	42'	398+50	42'	1067.57	1067.76	1067.57
1067.77	1067.96	1067.77	42'	399+00	42'	1067.77	1067.96	1067.77
1067.97	1068.16	1067.97	42'	399+50	42'	1067.97	1068.16	1067.97
1068.17	1068.36	1068.17	42'	400+00	42'	1068.17	1068.36	1068.17
1068.37	1068.56	1068.37	42'	400+50	42'	1068.37	1068.56	1068.37
1068.57	1068.76	1068.57	42'	401+00	42'	1068.57	1068.76	1068.57
1068.77	1068.96	1068.77	42'	401+50	42'	1068.77	1068.96	1068.77
1068.97	1069.16	1068.97	42'	402+00	42'	1068.97	1069.16	1068.97
1069.17	1069.36	1069.17	42'	402+50	42'	1069.17	1069.36	1069.17
1069.37	1069.56	1069.37	42'	403+00	42'	1069.37	1069.56	1069.37
1069.57	1069.76	1069.57	42'	403+50	42'	1069.57	1069.76	1069.57
1069.77	1069.96	1069.77	42'	404+00	42'	1069.77	1069.96	1069.77
1069.97	1070.16	1069.97	42'	404+50	42'	1069.97	1070.16	1069.97
1070.17	1070.36	1070.17	42'	405+00	42'	1070.17	1070.36	1070.17
1070.37	1070.56	1070.37	42'	405+50	42'	1070.37	1070.56	1070.37
1070.57	1070.76	1070.57	42'	406+00	42'	1070.57	1070.76	1070.57
1070.77	1070.96	1070.77	42'	406+50	42'	1070.77	1070.96	1070.77
1070.97	1071.16	1070.97	42'	407+00	42'	1070.97	1071.16	1070.97
1071.17	1071.36	1071.17	42'	407+50	42'	1071.17	1071.36	1071.17
1071.37	1071.56	1071.37	42'	408+00	42'	1071.37	1071.56	1071.37
1071.46	1071.65	1071.46	42'	408+25	42'	1071.46	1071.65	1071.46
1071.55	1071.74	1071.55	42'	408+50	42'	1071.55	1071.74	1071.55
1071.62	1071.81	1071.62	42'	408+75	42'	1071.62	1071.81	1071.62
1071.68	1071.87	1071.68	42'	409+00	42'	1071.68	1071.87	1071.68
1071.73	1071.92	1071.73	42'	409+25	42'	1071.73	1071.92	1071.73
1071.77	1071.96	1071.77	42'	409+50	42'	1071.77	1071.96	1071.77

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1071.79	1071.98	1071.79	42'	409+75	42'	1071.79	1071.98	1071.79
1071.81	1072.00	1071.81	42'	410+00	42'	1071.81	1072.00	1071.81
1071.81	1072.00	1071.81	42'	410+25	42'	1071.81	1072.00	1071.81
1071.81	1072.00	1071.81	42'	410+50	42'	1071.81	1072.00	1071.81
1071.79	1071.98	1071.79	42'	410+75	42'	1071.79	1071.98	1071.79
1071.76	1071.95	1071.76	42'	411+00	42'	1071.76	1071.95	1071.76
1071.72	1071.91	1071.72	42'	411+25	42'	1071.72	1071.91	1071.72
1071.67	1071.86	1071.67	42'	411+50	42'	1071.67	1071.86	1071.67
1071.60	1071.79	1071.60	42'	411+75	42'	1071.60	1071.79	1071.60
1071.53	1071.72	1071.53	42'	412+00	42'	1071.53	1071.72	1071.53
1071.37	1071.56	1071.37	42'	412+50	42'	1071.37	1071.56	1071.37
1071.21	1071.40	1071.21	42'	413+00	42'	1071.21	1071.40	1071.21
1071.05	1071.24	1071.05	42'	413+50	42'	1071.05	1071.24	1071.05
1070.89	1071.08	1070.89	42'	414+00	42'	1070.89	1071.08	1070.89
1070.73	1070.92	1070.73	42'	414+50	42'	1070.73	1070.92	1070.73
1070.57	1070.76	1070.57	42'	415+00	42'	1070.57	1070.76	1070.57
1070.41	1070.60	1070.41	42'	415+50	42'	1070.41	1070.60	1070.41
1070.25	1070.44	1070.25	42'	416+00	42'	1070.25	1070.44	1070.25
1070.09	1070.28	1070.09	42'	416+50	42'	1070.09	1070.28	1070.09
1069.93	1070.12	1069.93	42'	417+00	42'	1069.93	1070.12	1069.93
1069.77	1069.96	1069.77	42'	417+50	42'	1069.77	1069.96	1069.77
1069.61	1069.80	1069.61	42'	418+00	42'	1069.61	1069.80	1069.61
1069.45	1069.64	1069.45	42'	418+50	42'	1069.45	1069.64	1069.45
1069.29	1069.48	1069.29	42'	419+00	42'	1069.29	1069.48	1069.29
1069.13	1069.32	1069.13	42'	419+50	42'	1069.13	1069.32	1069.13
1068.97	1069.16	1068.97	42'	420+00	42'	1068.97	1069.16	1068.97
1068.81	1069.00	1068.81	42'	420+50	42'	1068.81	1069.00	1068.81
1068.65	1068.84	1068.65	42'	421+00	42'	1068.65	1068.84	1068.65
1068.49	1068.68	1068.49	42'	421+50	42'	1068.49	1068.68	1068.49
1068.36	1068.55	1068.36	42'	422+00	42'	1068.36	1068.55	1068.36
1068.31	1068.50	1068.31	42'	422+25	42'	1068.31	1068.50	1068.31
1068.28	1068.47	1068.28	42'	422+50	42'	1068.28	1068.47	1068.28
1068.26	1068.45	1068.26	42'	422+75	42'	1068.26	1068.45	1068.26
1068.25	1068.44	1068.25	42'	423+00	42'	1068.25	1068.44	1068.25
1068.26	1068.45	1068.26	42'	423+25	42'	1068.26	1068.45	1068.26
1068.28	1068.47	1068.28	42'	423+50	42'	1068.28	1068.47	1068.28
1068.32	1068.51	1068.32	42'	423+75	42'	1068.32	1068.51	1068.32
1068.36	1068.55	1068.36	42'	424+00	42'	1068.36	1068.55	1068.36
1068.42	1068.61	1068.42	42'	424+25	42'	1068.42	1068.61	1068.42
1068.51	1068.70	1068.51	42'	424+50	42'	1068.51	1068.70	1068.51
1068.60	1068.79	1068.60	42'	424+75	42'	1068.60	1068.79	1068.60
1068.70	1068.89	1068.70	42'	425+00	42'	1068.70	1068.89	1068.70
1068.82	1069.01	1068.82	42'	425+25	42'	1068.82	1069.01	1068.82
1068.95	1069.14	1068.95	42'	425+50	42'	1068.95	1069.14	1068.95
1069.22	1069.41	1069.22	42'	426+00	42'	1069.22	1069.41	1069.22
1069.50	1069.69	1069.50	42'	426+50	42'	1069.50	1069.69	1069.50
1069.77	1069.96	1069.77	42'	427+00	42'	1069.77	1069.96	1069.77
1070.05	1070.24	1070.05	42'	427+50	42'	1070.05	1070.24	1070.05
1070.32	1070.51	1070.32	42'	428+00	42'	1070.32	1070.51	1070.32
1070.60	1070.79	1070.60	42'	428+50	42'	1070.60	1070.79	1070.60
1070.87	1071.06	1070.87	42'	429+00	42'	1070.87	1071.06	1070.87
1071.15	1071.34	1071.15	42'	429+50	42'	1071.15	1071.34	1071.15
1071.42	1071.61	1071.42	42'	430+00	42'	1071.42	1071.61	1071.42
1071.69	1071.88	1071.69	42'	430+50	42'	1071.69	1071.88	1071.69
1071.97	1072.16	1071.97	42'	431+00	42'	1071.97	1072.16	1071.97
1072.24	1072.43	1072.24	42'	431+50	42'	1072.24	1072.43	1072.24
1072.52	1072.71	1072.52	42'	432+00	42'	1072.52	1072.71	1072.52
1072.79	1072.98	1072.79	42'	432+50	42'	1072.79	1072.98	1072.79

PAVEMENT ELEVATION TABLES

CALC. BY DJM DATE 1-25-98
CHKD. BY RM DATE 1-4-98

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1073.07	1073.26	1073.07	42'	433+00	42'	1073.07	1073.26	1073.07
1073.34	1073.53	1073.34	42'	433+50	42'	1073.34	1073.53	1073.34
1073.62	1073.81	1073.62	42'	434+00	42'	1073.62	1073.81	1073.62
1073.89	1074.08	1073.89	42'	434+50	42'	1073.89	1074.08	1073.89
1074.17	1074.36	1074.17	42'	435+00	42'	1074.17	1074.36	1074.17
1074.44	1074.63	1074.44	42'	435+50	42'	1074.44	1074.63	1074.44
1074.72	1074.91	1074.72	42'	436+00	42'	1074.72	1074.91	1074.72
1074.99	1075.18	1074.99	42'	436+50	42'	1074.99	1075.18	1074.99
1075.26	1075.45	1075.26	42'	437+00	42'	1075.26	1075.45	1075.26
1075.54	1075.73	1075.54	42'	437+50	42'	1075.54	1075.73	1075.54
1075.81	1076.00	1075.81	42'	438+00	42'	1075.81	1076.00	1075.81
1076.09	1076.28	1076.09	42'	438+50	42'	1076.09	1076.28	1076.09
1076.36	1076.55	1076.36	42'	439+00	42'	1076.36	1076.55	1076.36
1076.64	1076.83	1076.64	42'	439+50	42'	1076.64	1076.83	1076.64
1076.91	1077.10	1076.91	42'	440+00	42'	1076.91	1077.10	1076.91
1077.19	1077.38	1077.19	42'	440+50	42'	1077.19	1077.38	1077.19
1077.46	1077.65	1077.46	42'	441+00	42'	1077.46	1077.65	1077.46
1077.74	1077.93	1077.74	42'	441+50	42'	1077.74	1077.93	1077.74
1078.01	1078.20	1078.01	42'	442+00	42'	1078.01	1078.20	1078.01
1078.28	1078.47	1078.28	42'	442+50	42'	1078.28	1078.47	1078.28
1078.56	1078.75	1078.56	42'	443+00	42'	1078.56	1078.75	1078.56
1078.83	1079.02	1078.83	42'	443+50	42'	1078.83	1079.02	1078.83
1079.11	1079.30	1079.11	42'	444+00	42'	1079.11	1079.30	1079.11
1079.38	1079.57	1079.38	42'	444+50	42'	1079.38	1079.57	1079.38
1079.66	1079.85	1079.66	42'	445+00	42'	1079.66	1079.85	1079.66
1076.93	1080.12	1076.93	42'	445+50	42'	1076.93	1080.12	1076.93
1080.21	1080.40	1080.21	42'	446+00	42'	1080.21	1080.40	1080.21
1080.48	1080.67	1080.48	42'	446+50	42'	1080.48	1080.67	1080.48
1080.76	1080.95	1080.76	42'	447+00	42'	1080.76	1080.95	1080.76
1081.03	1081.22	1081.03	42'	447+50	42'	1081.03	1081.22	1081.03
1081.16	1081.35	1081.16	42'	447+75	42'	1081.16	1081.35	1081.16
1081.29	1081.48	1081.29	42'	448+00	42'	1081.29	1081.48	1081.29
1081.38	1081.57	1081.38	42'	448+25	42'	1081.38	1081.57	1081.38
1081.48	1081.67	1081.48	42'	448+50	42'	1081.48	1081.67	1081.48
1081.57	1081.76	1081.57	42'	448+75	42'	1081.57	1081.76	1081.57
1081.63	1081.82	1081.63	42'	449+00	42'	1081.63	1081.82	1081.63
1081.69	1081.88	1081.69	42'	449+25	42'	1081.69	1081.88	1081.69
1081.74	1081.93	1081.74	42'	449+50	42'	1081.74	1081.93	1081.74
1081.77	1081.96	1081.77	42'	449+75	42'	1081.77	1081.96	1081.77
1081.79	1081.98	1081.79	42'	450+00	42'	1081.79	1081.98	1081.79
1081.80	1081.99	1081.80	42'	450+25	42'	1081.80	1081.99	1081.80
1081.79	1081.98	1081.79	42'	450+50	42'	1081.79	1081.98	1081.79
1081.77	1081.96	1081.77	42'	450+75	42'	1081.77	1081.96	1081.77
1081.75	1081.94	1081.75	42'	451+00	42'	1081.75	1081.94	1081.75
1081.70	1081.89	1081.70	42'	451+25	42'	1081.70	1081.89	1081.70
1081.65	1081.84	1081.65	42'	451+50	42'	1081.65	1081.84	1081.65
1081.53	1081.72	1081.53	42'	452+00	42'	1081.53	1081.72	1081.53
1081.41	1081.60	1081.41	42'	452+50	42'	1081.41	1081.60	1081.41
1081.29	1081.48	1081.29	42'	453+00	42'	1081.29	1081.48	1081.29
1081.17	1081.36	1081.17	42'	453+50	42'	1081.17	1081.36	1081.17
1081.05	1081.24	1081.05	42'	454+00	42'	1081.05	1081.24	1081.05
1080.93	1081.12	1080.93	42'	454+50	42'	1080.93	1081.12	1080.93
1080.81	1081.00	1080.81	42'	455+00	42'	1080.81	1081.00	1080.81
1080.69	1080.88	1080.69	42'	455+50	42'	1080.69	1080.88	1080.69
1080.57	1080.76	1080.57	42'	456+00	42'	1080.57	1080.76	1080.57
1080.45	1080.64	1080.45	42'	456+50	42'	1080.45	1080.64	1080.45

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1080.33	1080.52	1080.33	42'	457+00	42'	1080.33	1080.52	1080.33
1080.21	1080.40	1080.21	42'	457+50	42'	1080.21	1080.40	1080.21
1080.09	1080.28	1080.09	42'	458+00	42'	1080.09	1080.28	1080.09
1079.97	1081.16	1079.97	42'	458+50	42'	1079.97	1081.16	1079.97
1079.85	1080.04	1079.85	42'	459+00	42'	1079.85	1080.04	1079.85
1079.73	1079.92	1079.73	42'	459+50	42'	1079.73	1079.92	1079.73
1079.61	1079.80	1079.61	42'	460+00	42'	1079.61	1079.80	1079.61
1079.49	1079.68	1079.49	42'	460+50	42'	1079.49	1079.68	1079.49
1079.37	1079.56	1079.37	42'	461+00	42'	1079.37	1079.56	1079.37
1079.25	1079.44	1079.25	42'	461+50	42'	1079.25	1079.44	1079.25
1079.13	1079.32	1079.13	42'	462+00	42'	1079.13	1079.32	1079.13
1079.01	1079.20	1079.01	42'	462+50	42'	1079.01	1079.20	1079.01
1078.89	1079.08	1078.89	42'	463+00	42'	1078.89	1079.08	1078.89
1078.77	1078.96	1078.77	42'	463+50	42'	1078.77	1078.96	1078.77
1078.65	1078.84	1078.65	42'	464+00	42'	1078.65	1078.84	1078.65
1078.53	1078.72	1078.53	42'	464+50	42'	1078.53	1078.72	1078.53
1078.41	1078.60	1078.41	42'	465+00	42'	1078.41	1078.60	1078.41
1078.29	1078.48	1078.29	42'	465+50	42'	1078.29	1078.48	1078.29
1078.17	1078.36	1078.17	42'	466+00	42'	1078.17	1078.36	1078.17
1078.05	1078.24	1078.05	42'	466+50	42'	1078.05	1078.24	1078.05
1077.93	1078.12	1077.93	42'	467+00	42'	1077.93	1078.12	1077.93
1077.81	1078.00	1077.81	42'	467+50	42'	1077.81	1078.00	1077.81
1077.69	1077.88	1077.69	42'	468+00	42'	1077.69	1077.88	1077.69
1077.57	1077.76	1077.57	42'	468+50	42'	1077.57	1077.76	1077.57
1077.45	1077.64	1077.45	42'	469+00	42'	1077.45	1077.64	1077.45
1077.33	1077.52	1077.33	42'	469+50	42'	1077.33	1077.52	1077.33
1077.21	1077.40	1077.21	42'	470+00	42'	1077.21	1077.40	1077.21
1077.09	1077.28	1077.09	42'	470+50	42'	1077.09	1077.28	1077.09
1076.97	1077.16	1076.97	42'	471+00	42'	1076.97	1077.16	1076.97
1076.85	1077.04	1076.85	42'	471+50	42'	1076.85	1077.04	1076.85
1076.73	1076.92	1076.73	42'	472+00	42'	1076.73	1076.92	1076.73
1076.61	1076.80	1076.61	42'	472+50	42'	1076.61	1076.80	1076.61
1076.49	1076.68	1076.49	42'	473+00	42'	1076.49	1076.68	1076.49
1076.37	1076.56	1076.37	42'	473+50	42'	1076.37	1076.56	1076.37
1076.25	1076.44	1076.25	42'	474+00	42'	1076.25	1076.44	1076.25
1076.13	1076.32	1076.13	42'	474+50	42'	1076.13	1076.32	1076.13
1076.01	1076.20	1076.01	42'	475+00	42'	1076.01	1076.20	1076.01
1075.89	1076.08	1075.89	42'	475+50	42'	1075.89	1076.08	1075.89
1075.77	1075.96	1075.77	42'	476+00	42'	1075.77	1075.96	1075.77
1075.65	1075.84	1075.65	42'	476+50	42'	1075.65	1075.84	1075.65
1075.53	1075.72	1075.53	42'	477+00	42'	1075.53	1075.72	1075.53
1075.41	1075.60	1075.41	42'	477+50	42'	1075.41	1075.60	1075.41
1075.29	1075.48	1075.29	42'	478+00	42'	1075.29	1075.48	1075.29
1075.17	1075.36	1075.17	42'	478+50	42'	1075.17	1075.36	1075.17
1075.05	1075.24	1075.05	42'	479+00	42'	1075.05	1075.24	1075.05
1074.93	1075.12	1074.93	42'	479+50	42'	1074.93	1075.12	1074.93
1074.81	1075.00	1074.81	42'	480+00	42'	1074.81	1075.00	1074.81
1074.69	1074.88	1074.69	42'	480+50	42'	1074.69	1074.88	1074.69
1074.57	1074.76	1074.57	42'	481+00	42'	1074.57	1074.76	1074.57
1074.45	1074.64	1074.45	42'	481+50	42'	1074.45	1074.64	1074.45
1074.33	1074.52	1074.33	42'	482+00	42'	1074.33	1074.52	1074.33
1074.21	1074.40	1074.21	42'	482+50	42'	1074.21	1074.40	1074.21
1074.09	1074.28	1074.09	42'	483+00	42'	1074.09	1074.28	1074.09
1073.97	1074.16	1073.97	42'	483+50	42'	1073.97	1074.16	1073.97
1073.85	1074.04	1073.85	42'	484+00	42'	1073.85	1074.04	1073.85
1073.73	1073.92	1073.73	42'	484+50	42'	1073.73	1073.92	1073.73
1073.61	1073.80	1073.61	42'	485+00	42'	1073.61	1073.80	1073.61
1073.49	1073.68	1073.49	42'	485+50	42'	1073.49	1073.68	1073.49

PAVEMENT ELEVATION TABLES

CALC. BY D.M.
DATE 2-29-88
CHKD. BY R.M.
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1073.37	1073.56	1073.37	42'	486+00	42'	1073.37	1073.56	1073.37
1073.25	1073.44	1073.25	42'	486+50	42'	1073.25	1073.44	1073.25
1073.13	1073.32	1073.13	42'	487+00	42'	1073.13	1073.32	1073.13
1073.01	1073.20	1073.01	42'	487+50	42'	1073.01	1073.20	1073.01
1072.89	1073.08	1072.89	42'	488+00	42'	1072.89	1073.08	1072.89
1072.77	1072.96	1072.77	42'	488+50	42'	1072.77	1072.96	1072.77
1072.65	1072.84	1072.65	42'	489+00	42'	1072.65	1072.84	1072.65
1072.53	1072.72	1072.53	42'	489+50	42'	1072.53	1072.72	1072.53
1072.41	1072.60	1072.41	42'	490+00	42'	1072.41	1072.60	1072.41
1072.29	1072.48	1072.29	42'	490+50	42'	1072.29	1072.48	1072.29
1072.17	1072.36	1072.17	42'	491+50	42'	1072.17	1072.36	1072.17
1072.05	1072.24	1072.05	42'	492+00	42'	1072.05	1072.24	1072.05
1071.93	1072.12	1071.93	42'	492+50	42'	1071.93	1072.12	1071.93
1071.81	1072.00	1071.81	42'	493+00	42'	1071.81	1072.00	1071.81
1071.69	1071.88	1071.69	42'	493+50	42'	1071.69	1071.88	1071.69
1071.57	1071.76	1071.57	42'	493+50	42'	1071.57	1071.76	1071.57
1071.45	1071.64	1071.45	42'	494+00	42'	1071.45	1071.64	1071.45
1071.33	1071.52	1071.33	42'	494+50	42'	1071.33	1071.52	1071.33
1071.21	1071.40	1071.21	42'	495+00	42'	1071.21	1071.40	1071.21
1071.09	1071.28	1071.09	42'	495+50	42'	1071.09	1071.28	1071.09
1070.97	1071.16	1070.97	42'	496+00	42'	1070.97	1071.16	1070.97
1070.85	1071.04	1070.85	42'	496+50	42'	1070.85	1071.04	1070.85
1070.73	1070.92	1070.73	42'	497+00	42'	1070.73	1070.92	1070.73
1070.61	1070.80	1070.61	42'	497+50	42'	1070.61	1070.80	1070.61
1070.49	1070.68	1070.49	42'	498+00	42'	1070.49	1070.68	1070.49
1070.37	1070.56	1070.37	42'	498+50	42'	1070.37	1070.56	1070.37
1070.25	1070.44	1070.25	42'	499+00	42'	1070.25	1070.44	1070.25
1070.13	1070.32	1070.13	42'	499+50	42'	1070.13	1070.32	1070.13
1070.01	1070.20	1070.01	42'	500+00	42'	1070.01	1070.20	1070.01
1069.89	1070.08	1069.89	42'	500+50	42'	1069.89	1070.08	1069.89
1069.77	1069 96	1069.77	42'	501+00	42'	1069.77	1069.96	1069.77
1069.65	1069.84	1069.65	42'	501+50	42'	1069.65	1069.84	1069.65
1069.53	1069.72	1069.53	42'	502+00	42'	1069.53	1069.72	1069.53
1069.41	1069.60	1069.41	42'	502+50	42'	1069.41	1069.60	1069.41
1069.29 1068.63	1069.48 1068.82	1069.29 1068.63	42'	503+00 BACK AHEAD	42'	1069.29 1068.63	1069.48 1068.82	1069.29 1068.63
1068.51	1068.70	1068.51	42'	503+50	42'	1068.51	1068.70	1068.51
1068.39	1068.58	1068.39	42'	504+00	42'	1068.39	1068.58	1068.39
1068.27	1068.46	1068.27	42'	504+50	42'	1068.27	1068.46	1068.27
1068.15	1068.34	1068.15	42'	505+00	42'	1068.15	1068.34	1068.15
1068.03	1068.22	1068.03	42'	505+50	42'	1068.03	1068.22	1068.03
1067.91	1068.10	1067.91	42'	506+00	42'	1067.91	1068.10	1067.91
1067.85	1068.04	1067.85	42'	506+25	42'	1067.85	1068.04	1067.85
1067.79	1067.98	1067.79	42'	506+50	42'	1067.79	1067.98	1067.79
1067.72	1067.91	1067.72	42'	506+75	42'	1067.72	1067.91	1067.72
1067.66	1067.85	1067.66	42'	507+00	42'	1067.66	1067.85	1067.66
1067.59	1067.78	1067.59	42'	507+25	42'	1067.59	1067.78	1067.59
1067.53	1067.72	1067.53	42'	507+50	42'	1067.53	1067.72	1067.53
1067.46	1067.65	1067.46	42'	507+75	42'	1067.46	1067.65	1067.46
1067.39	1067.58	1067.39	42'	508+00	42'	1067.39	1067.58	1067.39
1067.32	1067.51	1067.32	42'	508+25	42'	1067.32	1067.51	1067.32
1067.25	1067.44	1067.25	42'	508+50	42'	1067.25	1067.44	1067.25
1067.17	1067.36	1067.17	42'	508+75	42'	1067.17	1067.36	1067.17
1067.10	1067.29	1067.10	42'	509+00	42'	1067.10	1067.29	1067.10
1067.02	1067.21	1067.02	42'	509+25	42'	1067.02	1067.21	1067.02
1066.95	1067.14	1066.95	42'	509+50	42'	1066.95	1067.14	1066.95
1066.87	1067.06	1066.87	42'	509+75	42'	1066.87	1067.06	1066.87
1066.79	1066.98	1066.79	42'	510+00	42'	1066.79	1066.98	1066.79
1066.63	1066.82	1066.63	42'	510+50	42'	1066.63	1066.82	1066.63

Vertial Equation
Sta. 503+00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1066.47	1066.66	1066.47	42'	511+00	42'	1066.47	1066.66	1066.47
1066.31	1066.50	1066.31	42'	511+50	42'	1066.31	1066.50	1066.31
1066.15	1066.34	1066.15	42'	512+00	42'	1066.15	1066.34	1066.15
1065.99	1066.18	1065.99	42'	512+50	42'	1065.99	1066.18	1065.99
1065.83	1066.02	1065.83	42'	513+00	42'	1065.83	1066.02	1065.83
1065.67	1065.86	1065.67	42'	513+50	42'	1065.67	1065.86	1065.67
1065.51	1065.70	1065.51	42'	514+00	42'	1065.51	1065.70	1065.51
1065.35	1065.54	1065.35	42'	514+50	42'	1065.35	1065.54	1065.35
1065.19	1065.38	1065.19	42'	515+00	42'	1065.19	1065.38	1065.19
1065.03	1065.22	1065.03	42'	515+50	42'	1065.03	1065.22	1065.03
1064.87	1065.06	1064.87	42'	516+00	42'	1064.87	1065.06	1064.87
1064.71	1064.90	1064.71	42'	516+50	42'	1064.71	1064.90	1064.71
1064.55	1064.74	1064.55	42'	517+00	42'	1064.55	1064.74	1064.55
1064.39	1064.58	1064.39	42'	517+50	42'	1064.39	1064.58	1064.39
1064.23	1064.42	1064.23	42'	518+00	42'	1064.23	1064.42	1064.23
1064.07	1064.26	1064.07	42'	518+50	42'	1064.07	1064.26	1064.07
1063.91	1064.10	1063.91	42'	519+00	42'	1063.91	1064.10	1063.91
1063.75	1063.94	1063.75	42'	519+50	42'	1063.75	1063.94	1063.75
1063.59	1063.78	1063.59	42'	520+00	42'	1063.59	1063.78	1063.59
1063.43	1063.62	1063.43	42'	520+50	42'	1063.43	1063.62	1063.43
1063.27	1063.46	1063.27	42'	521+00	42'	1063.27	1063.46	1063.27
1063.11	1063.30	1063.11	42'	521+50	42'	1063.11	1063.30	1063.11
1062.95	1063.14	1062.95	42'	522+00	42'	1062.95	1063.14	1062.95
1062.79	1062.98	1062.79	42'	522+50	42'	1062.79	1062.98	1062.79
1062.63	1062.82	1062.63	42'	523+00	42'	1062.63	1062.82	1062.63
1062.47	1062.66	1062.47	42'	523+50	42'	1062.47	1062.66	1062.47
1062.31	1062.50	1062.31	42'	524+00	42'	1062.31	1062.50	1062.31
1062.15	1062.34	1062.15	42'	524+50	42'	1062.15	1062.34	1062.15
1061.99	1062.18	1061.99	42'	525+00	42'	1061.99	1062.18	1061.99
1061.91	1062.10	1061.91	42'	525+25	42'	1061.91	1062.10	1061.91
1061.84	1062.03	1061.84	42'	525+50	42'	1061.84	1062.03	1061.84
1061.78	1061.97	1061.78	42'	525+75	42'	1061.78	1061.97	1061.78
1061.72	1061.91	1061.72	42'	526+00	42'	1061.72	1061.91	1061.72
1061.67	1061.86	1061.67	42'	526+25	42'	1061.67	1061.86	1061.67
1061.63	1061.82	1061.63	42'	526+50	42'	1061.63	1061.82	1061.63
1061.59	1061.78	1061.59	42'	526+75	42'	1061.59	1061.78	1061.59
1061.56	1061.75	1061.56	42'	527+00	42'	1061.56	1061.75	1061.56
1061.54	1061.73	1061.54	42'	527+25	42'	1061.54	1061.73	1061.54
1061.52	1061.71	1061.52	42'	527+50	42'	1061.52	1061.71	1061.52
1061.51	1061.70	1061.51	42'	527+75	42'	1061.51	1061.70	1061.51
1061.51	1061.70	1061.51	42'	528+00	42'	1061.51	1061.70	1061.51
1061.51	1061.70	1061.51	42'	528+25	42'	1061.51	1061.70	1061.51
1061.52	1061.71	1061.52	42'	528+50	42'	1061.52	1061.71	1061.52
1061.54	1061.73	1061.54	42'	528+75	42'	1061.54	1061.73	1061.54
1061.56	1061.75	1061.56	42'	529+00	42'	1061.56	1061.75	1061.56
1061.59	1061.78	1061.59	42'	529+25	42'	1061.59	1061.78	1061.59
1061.63	1061.82	1061.63	42'	529+50	42'	1061.63	1061.82	1061.63
1061.67	1061.86	1061.67	42'	529+75	42'	1061.67	1061.86	1061.67
1061.72	1061.91	1061.72	42'	530+00	42'	1061.72	1061.91	1061.72
1061.78	1061.97	1061.78	42'	530+25	42'	1061.78	1061.97	1061.78
1061.84	1062.03	1061.84	42'	530+50	42'	1061.84	1062.03	1061.84
1061.91	1062.10	1061.91	42'	530+75	42'	1061.91	1062.10	1061.91
1061.99	1062.18	1061.99	42'	531+00	42'	1061.99	1062.18	1061.99
1062.15	1062.34	1062.15	42'	531+50	42'	1062.15	1062.34	1062.15
1062.31	1062.50	1062.31	42'	532+00	42'	1062.31	1062.50	1062.31
1062.47	1062.66	1062.47	42'	532+50	42'	1062.47	1062.66	1062.47
1062.63	1062.82	1062.63	42'	533+00	42'	1062.63	1062.82	1062.63
1062.79	1062.98	1062.79	42'	533+50	42'	1062.79	1062.98	1062.79

PAVEMENT ELEVATION TABLES

CALC. BY O.K DATE 2-25-98
CHKD. BY RM DATE 3-4-98

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1062.95	1063.14	1062.95	42'	534+00	42'	1062.95	1063.14	1062.95
1063.11	1063.30	1063.11	42'	534+50	42'	1063.11	1063.30	1063.11
1063.27	1063.46	1063.27	42'	535+00	42'	1063.27	1063.46	1063.27
1063.43	1063.62	1063.43	42'	535+50	42'	1063.43	1063.62	1063.43
1063.59	1063.78	1063.59	42'	536+00	42'	1063.59	1063.78	1063.59
1063.75	1063.94	1063.75	42'	536+50	42'	1063.75	1063.94	1063.75
1063.91	1064.10	1063.91	42'	537+00	42'	1063.91	1064.10	1063.91
1064.07	1064.26	1064.07	42'	573+50	42'	1064.07	1064.26	1064.07
1064.23	1064.42	1064.23	42'	538+00	42'	1064.23	1064.42	1064.23
1064.39	1064.58	1064.39	42'	538+50	42'	1064.39	1064.58	1064.39
1064.55	1064.74	1064.55	42'	539+00	42'	1064.55	1064.74	1064.55
1064.71	1064.90	1064.71	42'	539+50	42'	1064.71	1064.90	1064.71
1064.87	1065.06	1064.87	42'	540+00	42'	1064.87	1065.06	1064.87
1065.03	1065.22	1065.03	42'	540+50	42'	1065.03	1065.22	1065.03
1065.19	1065.38	1065.19	42'	541+00	42'	1065.19	1065.38	1065.19
1065.35	1065.54	1065.35	42'	541+50	42'	1065.35	1065.54	1065.35
1065.51	1065.70	1065.51	42'	542+00	42'	1065.51	1065.70	1065.51
1065.67	1065.86	1065.67	42'	542+50	42'	1065.67	1065.86	1065.67
1065.83	1066.02	1065.83	42'	543+00	42'	1065.83	1066.02	1065.83
1065.99	1066.18	1065.99	42'	543+50	42'	1065.99	1066.18	1065.99
1066.15	1066.34	1066.15	42'	544+00	42'	1066.15	1066.34	1066.15
1066.31	1066.50	1066.31	42'	544+50	42'	1066.31	1066.50	1066.31
1066.47	1066.66	1066.47	42'	545+00	42'	1066.47	1066.66	1066.47
1066.63	1066.82	1066.63	42'	545+50	42'	1066.63	1066.82	1066.63
1066.79	1066.98	1066.79	42'	546+00	42'	1066.79	1066.98	1066.79
1066.95	1067.14	1066.95	42'	546+50	42'	1066.95	1067.14	1066.95
1067.11	1067.30	1067.11	42'	547+00	42'	1067.11	1067.30	1067.11
1067.27	1067.46	1067.27	42'	547+50	42'	1067.27	1067.46	1067.27
1067.43	1067.62	1067.43	42'	548+00	42'	1067.43	1067.62	1067.43
1067.59	1067.78	1067.59	42'	548+50	42'	1067.59	1067.78	1067.59
1067.75	1067.94	1067.75	42'	549+00	42'	1067.75	1067.94	1067.75
1067.91	1068.10	1067.91	42'	549+50	42'	1067.91	1068.10	1067.91
1068.07	1068.26	1068.07	42'	550+00	42'	1068.07	1068.26	1068.07
1068.23	1068.42	1068.23	42'	550+50	42'	1068.23	1068.42	1068.23
1068.39	1068.58	1068.39	42'	551+00	42'	1068.39	1068.58	1068.39
1068.55	1068.74	1068.55	42'	551+50	42'	1068.55	1068.74	1068.55
1068.71	1068.90	1068.71	42'	552+00	42'	1068.71	1068.90	1068.71
1068.87	1069.06	1068.87	42'	552+50	42'	1068.87	1069.06	1068.87
1069.03	1069.22	1069.03	42'	553+00	42'	1069.03	1069.22	1069.03
1069.19	1069.38	1069.19	42'	553+50	42'	1069.19	1069.38	1069.19
1069.35	1069.54	1069.35	42'	554+00	42'	1069.35	1069.54	1069.35
1069.51	1069.70	1069.51	42'	554+50	42'	1069.51	1069.70	1069.51
1069.67	1069.86	1069.67	42'	555+00	42'	1069.67	1069.86	1069.67
1069.83	1070.02	1069.83	42'	555+50	42'	1069.83	1070.02	1069.83
1069.99	1070.18	1069.99	42'	556+00	42'	1069.99	1070.18	1069.99
1070.15	1070.34	1070.15	42'	556+50	42'	1070.15	1070.34	1070.15
1070.31	1070.50	1070.31	42'	557+00	42'	1070.31	1070.50	1070.31
1070.47	1070.66	1070.47	42'	557+50	42'	1070.47	1070.66	1070.47
1070.63	1070.82	1070.63	42'	558+00	42'	1070.63	1070.82	1070.63
1070.79	1070.98	1070.79	42'	558+50	42'	1070.79	1070.98	1070.79
1070.95	1071.14	1070.95	42'	559+00	42'	1070.95	1071.14	1070.95
1071.11	1071.30	1071.11	42'	559+50	42'	1071.11	1071.30	1071.11
1071.27	1071.46	1071.27	42'	560+00	42'	1071.27	1071.46	1071.27
1071.43	1071.62	1071.43	42'	560+50	42'	1071.43	1071.62	1071.43
1071.59	1071.78	1071.59	42'	561+00	42'	1071.59	1071.78	1071.59
1071.75	1071.94	1071.75	42'	561+50	42'	1071.75	1071.94	1071.75
1071.91	1072.10	1071.91	42'	562+00	42'	1071.91	1072.10	1071.91
1072.07	1072.26	1072.07	42'	562+50	42'	1072.07	1072.26	1072.07

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1072.03	1072.22	1072.03	42'	563+00	42'	1072.03	1072.22	1072.03
1072.39	1072.58	1072.39	42'	563+50	42'	1072.39	1072.58	1072.39
1072.55	1072.74	1072.55	42'	564+00	42'	1072.55	1072.74	1072.55
1072.71	1072.90	1072.71	42'	564+50	42'	1072.71	1072.90	1072.71
1072.87	1073.06	1072.87	42'	565+00	42'	1072.87	1073.06	1072.87
1073.03	1073.22	1073.03	42'	565+50	42'	1073.03	1073.22	1073.03
1073.19	1073.38	1073.19	42'	566+00	42'	1073.19	1073.38	1073.19
1073.35	1073.54	1073.35	42'	566+50	42'	1073.35	1073.54	1073.35
1073.51	1073.70	1073.51	42'	567+00	42'	1073.51	1073.70	1073.51
1073.67	1073.86	1073.67	42'	567+50	42'	1073.67	1073.86	1073.67
1073.83	1074.02	1073.83	42'	568+00	42'	1073.83	1074.02	1073.83
1073.99	1074.18	1073.99	42'	568+50	42'	1073.99	1074.18	1073.99
1074.15	1074.34	1074.15	42'	569+00	42'	1074.15	1074.34	1074.15
1074.31	1074.50	1074.31	42'	569+50	42'	1074.31	1074.50	1074.31
1074.47	1074.66	1074.47	42'	570+00	42'	1074.47	1074.66	1074.47
1074.63	1074.82	1074.63	42'	570+50	42'	1074.63	1074.82	1074.63
1074.79	1074.98	1074.79	42'	571+00	42'	1074.79	1074.98	1074.79
1074.95	1075.14	1074.95	42'	571+50	42'	1074.95	1075.14	1074.95
1075.11	1075.30	1075.11	42'	572+00	42'	1075.11	1075.30	1075.11
1075.27	1075.46	1075.27	42'	572+50	42'	1075.27	1075.46	1075.27
1075.43	1075.62	1075.43	42'	573+00	42'	1075.43	1075.62	1075.43
1075.59	1075.78	1075.59	42'	573+50	42'	1075.59	1075.78	1075.59
1075.75	1075.94	1075.75	42'	574+00	42'	1075.75	1075.94	1075.75
1075.91	1076.10	1075.91	42'	574+50	42'	1075.91	1076.10	1075.91
1076.07	1076.26	1076.07	42'	575+00	42'	1076.07	1076.26	1076.07
1076.23	1076.42	1076.23	42'	575+50	42'	1076.23	1076.42	1076.23
1076.39	1076.58	1076.39	42'	576+00	42'	1076.39	1076.58	1076.39
1076.55	1076.74	1076.55	42'	576+50	42'	1076.55	1076.74	1076.55
1076.71	1076.90	1076.71	42'	577+00	42'	1076.71	1076.90	1076.71
1076.78	1076.97	1076.78	42'	577+25	42'	1076.78	1076.97	1076.78
1076.85	1077.04	1076.85	42'	577+50	42'	1076.85	1077.04	1076.85
1076.90	1077.09	1076.90	42'	577+75	42'	1076.90	1077.09	1076.90
1076.95	1077.14	1076.95	42'	578+00	42'	1076.95	1077.14	1076.95
1076.98	1077.17	1076.98	42'	578+25	42'	1076.98	1077.17	1076.98
1077.00	1077.19	1077.00	42'	578+50	42'	1077.00	1077.19	1077.00
1077.01	1077.20	1077.01	42'	578+75	42'	1077.01	1077.20	1077.01
1077.01	1077.20	1077.01	42'	579+00	42'	1077.01	1077.20	1077.01
1077.00	1077.19	1077.00	42'	579+25	42'	1077.00	1077.19	1077.00
1076.98	1077.17	1076.98	42'	579+50	42'	1076.98	1077.17	1076.98
1076.95	1077.14	1076.95	42'	579+75	42'	1076.95	1077.14	1076.95
1076.91	1077.10	1076.91	42'	580+00	42'	1076.91	1077.10	1076.91
1076.85	1077.04	1076.85	42'	580+25	42'	1076.85	1077.04	1076.85
1076.79	1076.98	1076.79	42'	580+50	42'	1076.79	1076.98	1076.79
1076.71	1076.90	1076.71	42'	580+75	42'	1076.71	1076.90	1076.71
1076.63	1076.82	1076.63	42'	581+00	42'	1076.63	1076.82	1076.63
1076.45	1076.64	1076.45	42'	581+50	42'	1076.45	1076.64	1076.45
1076.27	1076.46	1076.27	42'	582+00	42'	1076.27	1076.46	1076.27
1076.09	1076.28	1076.09	42'	582+50	42'	1076.09	1076.28	1076.09
1075.91	1076.10	1075.91	42'	583+00	42'	1075.91	1076.10	1075.91
1075.73	1075.92	1075.73	42'	583+50	42'	1075.73	1075.92	1075.73
1075.55	1075.74	1075.55	42'	584+00	42'	1075.55	1075.74	1075.55
1075.37	1075.56	1075.37	42'	584+50	42'	1075.37	1075.56	1075.37
1075.19	1075.38	1075.19	42'	585+00	42'	1075.19	1075.38	1075.19
1075.01	1075.20	1075.01	42'	585+50	42'	1075.01	1075.20	1075.01
1074.83	1075.02	1074.83	42'	586+00	42'	1074.83	1075.02	1074.83
1074.65	1074.84	1074.65	42'	586+50	42'	1074.65	1074.84	1074.65
1074.47	1074.66	1074.47	42'	587+00	42'	1074.47	1074.66	1074.47
1074.29	1074.48	1074.29	42'	587+50	42'	1074.29	1074.48	1074.29

PAVEMENT ELEVATION TABLES

CALC. BY D.M DATE 1-29-98
CHKD. BY RM DATE 3-4-98

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1074.11	1074.30	1074.11	42'	588+00	42'	1074.11	1074.30	1074.11
1073.93	1074.12	1073.93	42'	588+50	42'	1073.93	1074.12	1073.93
1073.85	1074.04	1073.85	42'	588+75	42'	1073.85	1074.04	1073.85
1073.78	1073.97	1073.78	42'	589+00	42'	1073.78	1073.97	1073.78
1073.73	1073.92	1073.73	42'	589+25	42'	1073.73	1073.92	1073.73
1073.70	1073.89	1073.70	42'	589+50	42'	1073.70	1073.89	1073.70
1073.68	1073.87	1073.68	42'	589+75	42'	1073.68	1073.87	1073.68
1073.68	1073.87	1073.68	42'	590+00	42'	1073.68	1073.87	1073.68
1073.70	1073.89	1073.70	42'	590+25	42'	1073.70	1073.89	1073.70
1073.73	1073.92	1073.73	42'	590+50	42'	1073.73	1073.92	1073.73
1073.78	1073.97	1073.78	42'	590+75	42'	1073.78	1073.97	1073.78
1073.84	1074.03	1073.84	42'	591+00	42'	1073.84	1074.03	1073.84
1073.92	1074.11	1073.92	42'	591+25	42'	1073.92	1074.11	1073.92
1074.02	1074.21	1074.02	42'	591+50	42'	1074.02	1074.21	1074.02
1074.13	1074.32	1074.13	42'	591+75	42'	1074.13	1074.32	1074.13
1074.26	1074.45	1074.26	42'	592+00	42'	1074.26	1074.45	1074.26
1074.40	1074.59	1074.40	42'	592+25	42'	1074.40	1074.59	1074.40
1074.57	1074.76	1074.57	42'	592+50	42'	1074.57	1074.76	1074.57
1074.90	1075.09	1074.90	42'	593+00	42'	1074.90	1075.09	1074.90
1075.24	1075.43	1075.24	42'	593+50	42'	1075.24	1075.43	1075.24
1075.58	1075.77	1075.58	42'	594+00	42'	1075.58	1075.77	1075.58
1075.92	1076.11	1075.92	42'	594+50	42'	1075.92	1076.11	1075.92
1076.26	1076.45	1076.26	42'	595+00	42'	1076.26	1076.45	1076.26
1076.60	1076.79	1076.60	42'	595+50	42'	1076.60	1076.79	1076.60
1076.94	1077.13	1076.94	42'	596+00	42'	1076.94	1077.13	1076.94
1077.28	1077.47	1077.28	42'	596+50	42'	1077.28	1077.47	1077.28
1077.61	1077.80	1077.61	42'	597+00	42'	1077.61	1077.80	1077.61
1077.95	1078.14	1077.95	42'	597+50	42'	1077.95	1078.14	1077.95
1078.29	1078.48	1078.29	42'	598+00	42'	1078.29	1078.48	1078.29
1078.63	1078.82	1078.63	42'	598+50	42'	1078.63	1078.82	1078.63
1078.97	1079.16	1078.97	42'	599+00	42'	1078.97	1079.16	1078.97
1079.31	1079.50	1079.31	42'	599+50	42'	1079.31	1079.50	1079.31
1079.65	1079.84	1079.65	42'	600+00	42'	1079.65	1079.84	1079.65
1079.99	1080.18	1079.99	42'	600+50	42'	1079.99	1080.18	1079.99
1080.32	1080.51	1080.32	42'	601+00	42'	1080.32	1080.51	1080.32
1080.66	1080.85	1080.66	42'	601+50	42'	1080.66	1080.85	1080.66
1081.00	1081.19	1081.00	42'	602+00	42'	1081.00	1081.19	1081.00
1081.34	1081.53	1081.34	42'	602+50	42'	1081.34	1081.53	1081.34
1081.51	1081.70	1081.51	42'	602+75	42'	1081.51	1081.70	1081.51
1081.66	1081.85	1081.66	42'	603+00	42'	1081.66	1081.85	1081.66
1081.81	1082.00	1081.81	42'	603+25	42'	1081.81	1082.00	1081.81
1081.94	1082.13	1081.94	42'	603+50	42'	1081.94	1082.13	1081.94
1082.07	1082.26	1082.07	42'	603+75	42'	1082.07	1082.26	1082.07
1082.19	1082.38	1082.19	42'	604+00	42'	1082.19	1082.38	1082.19
1082.29	1082.48	1082.29	42'	604+25	42'	1082.29	1082.48	1082.29
1082.39	1082.58	1082.39	42'	604+50	42'	1082.39	1082.58	1082.39
1082.48	1082.67	1082.48	42'	604+75	42'	1082.48	1082.67	1082.48
1082.56	1082.75	1082.56	42'	605+00	42'	1082.56	1082.75	1082.56
1082.63	1082.82	1082.63	42'	605+25	42'	1082.63	1082.82	1082.63
1082.69	1082.88	1082.69	42'	605+50	42'	1082.69	1082.88	1082.69
1082.74	1082.93	1082.74	42'	605+75	42'	1082.74	1082.93	1082.74
1082.78	1082.97	1082.78	42'	606+00	42'	1082.78	1082.97	1082.78
1082.82	1083.01	1082.82	42'	606+25	42'	1082.82	1083.01	1082.82
1082.84	1083.03	1082.84	42'	606+50	42'	1082.84	1083.03	1082.84
1082.85	1083.04	1082.85	42'	606+75	42'	1082.85	1083.04	1082.85
1082.85	1083.04	1082.85	42'	607+00	42'	1082.85	1083.04	1082.85
1082.85	1083.04	1082.85	42'	607+25	42'	1082.85	1083.04	1082.85
1082.83	1083.02	1082.83	42'	607+50	42'	1082.83	1083.02	1082.83
1082.81	1083.00	1082.81	42'	607+75	42'	1082.81	1083.00	1082.81

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1082.77	1082.96	1082.77	42'	608+00	42'	1082.77	1082.96	1082.77
1082.73	1082.92	1082.73	42'	608+25	42'	1082.73	1082.92	1082.73
1082.68	1082.87	1082.68	42'	608+50	42'	1082.68	1082.87	1082.68
1082.61	1082.80	1082.61	42'	608+75	42'	1082.61	1082.80	1082.61
1082.54	1082.73	1082.54	42'	609+00	42'	1082.54	1082.73	1082.54
1082.46	1082.65	1082.46	42'	609+25	42'	1082.46	1082.65	1082.46
1082.37	1082.56	1082.37	42'	609+50	42'	1082.37	1082.56	1082.37
1082.27	1082.46	1082.27	42'	609+75	42'	1082.27	1082.46	1082.27
1082.16	1082.35	1082.16	42'	610+00	42'	1082.16	1082.35	1082.16
1082.04	1082.23	1082.04	42'	610+25	42'	1082.04	1082.23	1082.04
1081.91	1082.10	1081.91	42'	610+50	42'	1081.91	1082.10	1081.91
1081.77	1081.96	1081.77	42'	610+75	42'	1081.77	1081.96	1081.77
1081.62	1081.81	1081.62	42'	611+00	42'	1081.62	1081.81	1081.62
1081.46	1081.65	1081.46	42'	611+25	42'	1081.46	1081.65	1081.46
1081.29	1081.48	1081.29	42'	611+50	42'	1081.29	1081.48	1081.29
1081.12	1081.31	1081.12	42'	611+75	42'	1081.12	1081.31	1081.12
1080.93	1081.12	1080.93	42'	612+00	42'	1080.93	1081.12	1080.93
1080.74	1080.93	1080.74	42'	612+25	42'	1080.74	1080.93	1080.74
1080.53	1080.72	1080.53	42'	612+50	42'	1080.53	1080.72	1080.53
1080.11	1080.30	1080.11	42'	613+00	42'	1080.30	1080.11	
1079.69	1079.88	1079.69	42'	613+50	42'	1079.69	1079.88	1079.69
1079.27	1079.46	1079.27	42'	614+00	42'	1079.27	1079.46	1079.27
1078.85	1079.04	1078.85	42'	614+50	42'	1078.85	1079.04	1078.85
1078.43	1078.62	1078.43	42'	615+00	42'	1078.43	1078.62	1078.43
1078.01	1078.20	1078.01	42'	615+50	42'	1078.01	1078.20	1078.01
1077.59	1077.78	1077.59	42'	616+00	42'	1077.59	1077.78	1077.59
1077.17	1077.36	1077.17	42'	616+50	42'	1077.17	1077.36	1077.17
1076.75	1076.94	1076.75	42'	617+00	42'	1076.75	1076.94	1076.75
1076.33	1076.52	1076.33	42'	617+50	42'	1076.33	1076.52	1076.33
1075.91	1076.10	1075.91	42'	618+00	42'	1075.91	1076.10	1075.91
1075.49	1075.68	1075.49	42'	618+50	42'	1075.49	1075.68	1075.49
1075.07	1075.26	1075.07	42'	619+00	42'	1075.07	1075.26	1075.07
1074.65	1074.84	1074.65	42'	619+50	42'	1074.65	1074.84	1074.65
1074.23	1074.42	1074.23	42'	620+00	42'	1074.23	1074.42	1074.23
1073.81	1074.00	1073.81	42'	620+50	42'	1073.81	1074.00	1073.81
1073.39	1073.58	1073.39	42'	621+00	42'	1073.39	1073.58	1073.39
1072.97	1073.16	1072.97	42'	621+50	42'	1072.97	1073.16	1072.97
1072.55	1072.74	1072.55	42'	622+00	42'	1072.55	1072.74	1072.55
1072.18	1072.37	1072.18	42'	622+50	42'	1072.18	1072.37	1072.18
1071.71	1071.90	1071.71	42'	623+00	42'	1071.71	1071.90	1071.71
1071.29	1071.48	1071.29	42'	623+50	42'	1071.29	1071.48	1071.29
1070.87	1071.06	1070.87	42'	624+00	42'	1070.87	1071.06	1070.87
1070.45	1070.64	1070.45	42'	624+50	42'	1070.45	1070.64	1070.45
1070.03	1070.22	1070.03	42'	625+00	42'	1070.03	1070.22	1070.03
1069.61	1069.80	1069.61	42'	625+50	42'	1069.61	1069.80	1069.61
1069.19	1069.38	1069.19	42'	626+00	42'	1069.19	1069.38	1069.19
1068.77	1068.96	1068.77	42'	626+50	42'	1068.77	1068.96	1068.77
1068.35	1068.54	1068.35	42'	627+00	42'	1068.35	1068.54	1068.35
1067.93	1068.12	1067.93	42'	627+50	42'	1067.93	1068.12	1067.93
1067.51	1067.70	1067.51	42'	628+00	42'	1067.51	1067.70	1067.51
1067.09	1067.28	1067.09	42'	628+50	42'	1067.09	1067.28	1067.09
1066.67	1066.86	1066.67	42'	629+00	42'	1066.67	1066.86	1066.67
1066.25	1066.44	1066.25	42'	629+50	42'	1066.25	1066.44	1066.25
1065.83	1066.02	1065.83	42'	630+00	42'	1065.83	1066.02	1065.83
1065.41	1065.60	1065.41	42'	630+50	42'	1065.41	1065.60	1065.41
1064.99	1065.18	1064.99	42'	631+00	42'	1064.99	1065.18	1064.99
1064.57	1064.76	1064.57	42'	631+50	42'	1064.57	1064.76	1064.57
1064.15	1064.34	1064.15	42'	632+00	42'	1064.15	1064.34	1064.15
1063.73	1063.92	1063.73	42'	632+50	42'	1063.73	1063.92	1063.73

PAVEMENT ELEVATION TABLES

CALC. BY D.M DATE 2-27-88
CHKD. BY R.M DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

45/126

FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1063.31	1063.50	1063.31	42'	633+00	42'	1063.31	1063.50	1063.31
1062.89	1063.08	1062.89	42'	633+50	42'	1062.89	1063.08	1062.89
1062.47	1062.66	1062.47	42'	634+00	42'	1063.47	1063.66	1063.47
1062.26	1062.45	1062.26	42'	634+25	42'			
1062.05	1062.24	1062.05	42'	634+50	42'	1062.05	1062.24	1062.05
1061.83	1062.02	1061.83	42'	634+75	42'			
1061.61	1061.80	1061.61	42'	635+00	42'	1061.63	1061.82	1061.63
1061.39	1061.58	1061.39	42'	635+25	42'			
1061.17	1061.36	1061.17	42'	635+50	42'	1061.21	1061.40	1061.21
1060.95	1061.14	1060.95	42'	635+75	42'			
1060.73	1060.92	1060.73	42'	636+00	42'	1060.79	1060.98	1060.79
1060.50	1060.69	1060.50	42'	636+25	42'			
1060.27	1060.46	1060.27	42'	636+50	42'	1060.37	1060.56	1060.37
1060.04	1060.23	1060.04	42'	636+75	42'			
1059.80	1059.99	1059.80	42'	637+00	42'	1059.95	1060.14	1059.95
1059.57	1059.76	1059.57	42'	637+25	42'	1059.53	1059.72	1059.53
1059.33	1059.52	1059.33	42'	637+50	42'			
1059.09	1059.28	1059.09	42'	637+75	42'			
1058.85	1059.04	1058.85	42'	638+00	42'	1059.11	1059.30	1059.11
1058.37	1058.56	1058.37	42'	638+50	42'	1058.69	1058.88	1058.69
1057.88	1058.07	1057.88	42'	639+00	42'	1058.27	1058.46	1058.27
1057.40	1057.59	1057.40	42'	639+50	42'	1057.85	1058.04	1057.85
1056.91	1057.10	1056.91	42'	640+00	42'	1057.43	1057.62	1057.43
1056.43	1056.62	1056.43	42'	640+50	42'	1057.01	1057.20	1057.01
1055.94	1056.13	1055.94	42'	641+00	42'	1056.59	1056.78	1056.59
1055.46	1055.65	1055.46	42'	641+50	42'	1056.17	1056.36	1056.17
1054.97	1055.16	1054.97	42'	642+00	42'	1055.75	1055.94	1055.75
1054.49	1054.68	1054.49	42'	642+50	42'	1055.33	1055.52	1055.33
1054.00	1054.19	1054.00	42'	643+00	42'	1054.91	1055.10	1054.91
1053.52	1053.71	1053.52	42'	643+50	42'	1054.49	1054.68	1054.49
1053.03	1053.22	1053.03	42'	644+00	42'	1054.07	1054.26	1054.07
1052.55	1052.74	1052.55	42'	644+50	42'	1053.65	1053.84	1053.65
1052.06	1052.25	1052.06	42'	645+00	42'	1053.23	1053.42	1053.23
1051.58	1051.77	1051.58	42'	645+50	42'	1052.81	1053.00	1052.81
1051.09	1051.28	1051.09	42'	646+00	42'	1052.39	1052.58	1052.39
1050.61	1050.80	1050.61	42'	646+50	42'	1051.97	1052.16	1051.97
1050.12	1050.31	1050.12	42'	647+00	42'	1051.55	1051.74	1051.55
1049.64	1049.83	1049.64	42'	647+50	42'	1051.13	1051.32	1051.13
1049.15	1049.34	1049.15	42'	648+00	42'	1050.71	1050.90	1050.71
1048.67	1048.86	1048.67	42'	648+50	42'	1050.29	1050.48	1050.29
1048.18	1048.37	1048.18	42'	649+00	42'	1049.87	1050.06	1049.87
1047.70	1047.89	1047.70	42'	649+50	42'	1049.45	1049.64	1049.45
1047.21	1047.40	1047.21	42'	650+00	42'	1049.03	1049.22	1049.03
1046.73	1046.92	1046.73	42'	650+50	42'	1048.61	1048.80	1048.61
1046.24	1046.43	1046.24	42'	651+00	42'	1048.19	1048.38	1048.19
1045.76	1045.95	1045.76	42'	651+50	42'	1047.77	1047.96	1047.77
1045.27	1045.46	1045.27	42'	652+00	42'	1047.35	1047.54	1047.35
1044.79	1044.98	1044.79	42'	652+50	42'	1046.93	1047.12	1046.93
1044.30	1044.49	1044.30	42'	653+00	42'	1046.51	1046.70	1046.51
1043.82	1044.01	1043.82	42'	653+50	42'	1046.09	1046.28	1046.09
1043.33	1043.52	1043.33	42'	654+00	42'	1045.67	1045.86	1045.67
1042.85	1043.04	1042.85	42'	654+50	42'	1045.25	1045.44	1045.25
1042.36	1042.55	1042.36	42'	655+00	42'	1044.83	1045.02	1044.83
1041.88	1042.07	1041.88	42'	655+50	42'	1044.41	1044.60	1044.41
1041.39	1041.58	1041.39	42'	656+00	42'	1043.99	1044.18	1043.99
1040.91	1041.10	1040.91	42'	656+50	42'	1043.57	1043.76	1043.57
1040.42	1040.61	1040.42	42'	657+00	42'	1043.15	1043.34	1043.15
1039.94	1040.13	1039.94	42'	657+50	42'	1042.73	1042.92	1042.73

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1039.45	1039.64	1039.45	42'	658+00	42'	1042.31	1042.50	1042.31
1038.97	1039.16	1038.97	42'	658+50	42'	1041.89	1042.08	1041.89
1038.48	1038.67	1038.48	42'	659+00	42'	1041.47	1041.66	1041.47
1038.00	1038.19	1038.00	42'	659+50	42'	1041.05	1041.24	1041.05
1037.51	1037.70	1037.51	42'	660+00	42'	1040.63	1040.82	1040.63
1037.03	1037.22	1037.03	42'	660+50	42'	1040.21	1040.40	1040.21
1036.54	1036.73	1036.54	42'	661+00	42'	1039.79	1039.98	1039.79
1036.06	1036.25	1036.06	42'	661+50	42'	1039.37	1039.56	1039.37
1035.57	1035.76	1035.57	42'	662+00	42'	1038.95	1039.14	1038.95
1035.09	1035.28	1035.09	42'	662+50	42'	1038.53	1038.72	1038.53
1034.60	1034.79	1034.60	42'	663+00	42'	1038.11	1038.30	1038.11
1034.12	1034.31	1034.12	42'	663+50	42'	1037.69	1037.88	1037.69
1033.63	1033.82	1033.63	42'	664+00	42'	1037.27	1037.46	1037.27
1033.15	1033.34	1033.15	42'	664+50	42'	1036.85	1037.04	1036.85
1032.66	1032.85	1032.66	42'	665+00	42'	1036.43	1036.62	1036.43
1032.18	1032.37	1032.18	42'	665+50	42'	1036.01	1036.20	1036.01
1031.69	1031.88	1031.69	42'	666+00	42'	1035.59	1035.78	1035.59
1031.21	1031.40	1031.21	42'	666+50		1035.17	1035.36	1035.17
1030.72	1030.91	1030.72	42'	667+00	42'	1034.75	1034.94	1034.75
1030.24	1030.43	1030.24	42'	667+50	42'	1034.33	1034.52	1034.33
1029.75	1029.94	1029.75	42'	668+00	42'	1033.91	1034.10	1033.91
1029.27	1029.46	1029.27	42'	668+50	42'	1033.49	1033.68	1033.49
1028.78	1028.97	1028.78	42'	669+00	42'	1033.07	1033.26	1033.07
1028.30	1028.49	1028.30	42'	669+50	42'	1032.65	1032.84	1032.65
1027.81	1028.00	1027.81	42'	670+00	42'	1032.23	1032.42	1032.23
1027.33	1027.52	1027.33	42'	670+50	42'	1031.81	1032.00	1031.81
1026.84	1027.03	1026.84	42'	671+00	42'	1031.39	1031.58	1031.39
1026.36	1026.55	1026.36	42'	671+50	42'	1030.97	1031.16	1030.97
1025.87	1026.06	1025.87	42'	672+00	42'	1030.55	1030.74	1030.55
			42'	672+25	42'	1030.34	1030.53	1030.34
1025.39	1025.58	1025.39	42'	672+50	42'	1030.13	1030.32	1030.13
			42'	672+75	42'	1029.90	1030.09	1029.90
1024.90	1025.09	1024.90	42'	673+00	42'	1029.67	1029.86	1029.67
			42'	673+25	42'	1029.43	1029.62	1029.43
1024.42	1024.61	1024.42	42'	673+50	42'	1029.19	1029.38	1029.19
			42'	673+75	42'	1028.93	1029.12	1028.93
1023.93	1024.12	1023.93	42'	674+00	42'	1028.67	1028.86	1028.67
			42'	674+25	42'	1028.40	1028.59	1028.40
1023.45	1023.64	1023.45	42'	674+50	42'	1028.12	1038.31	1028.12
			42'	674+75	42'	1027.83	1028.02	1027.83
1022.96	1023.15	1022.96	42'	675+00	42'	1027.54	1027.73	1027.54
			42'	675+25	42'	1027.23	1027.42	1027.23
1022.48	1022.67	1022.48	42'	675+50	42'	1026.92	1027.11	1026.92
			42'	675+75	42'	1026.60	1026.79	1026.60
1021.99	1022.18	1021.99	42'	676+00	42'	1026.27	1026.46	1026.27
			42'	676+25	42'	1025.94	1026.13	1025.94
1021.51	1021.70	1021.51	42'	676+50	42'	1025.59	1025.78	1025.59
			42'	676+75	42'	1025.24	1025.43	1025.24
1021.02	1021.21	1021.02	42'	677+00	42'	1024.88	1025.07	1024.88
			42'	677+25	42'	1024.51	1024.70	1024.51
1020.54	1020.73	1020.54	42'	677+50	42'	1024.13	1024.32	1024.13
			42'	677+75	42'	1023.75	1023.94	1023.75
1020.05	1020.24	1020.05	42'	678+00	42'	1023.36	1023.55	1023.36
			42'	678+25	42'	1022.95	1023.14	1022.95
1019.57	1019.76	1019.57	42'	678+50	42'	1022.54	1022.73	1022.54
			42'	678+75	42'	1022.13	1022.32	1022.13

PAVEMENT ELEVATION TABLES

CALC. BY D.M. DATE 2-29-88
CHKD. BY RM DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
1019.08	1019.27	1019.08	42'	679+00	42'	1021.70	1021.89	1021.70
1018.83	1019.02	1018.83	42'	6793+50	42'	1021.27	1021.46	1021.27
1018.58	1018.77	1018.58	42'	679+50	42'	1020.82	1021.01	1020.82
1018.31	1018.50	1018.31	42'	679+75	42'	1020.37	1020.56	1020.37
1018.03	1018.22	1018.03	42'	680+00	42'	1019.92	1020.11	1019.92
1017.75	1017.94	1017.75	42'	680+25	42'	1019.45	1019.64	1019.45
1017.45	1017.64	1017.45	42'	680+50	42'	1018.98	1019.17	1018.98
1017.15	1017.34	1017.15	42'	680+75	42'			
1016.84	1017.03	1016.84	42'	681+00	42'	1018.04	1018.23	1018.04
1016.51	1016.70	1016.51	42'	681+25	42'			
1016.18	1016.37	1016.18	42'	681+50	42'	1017.10	1017.29	1017.10
1015.84	1016.03	1015.84	42'	681+75	42'			
1015.49	1015.68	1015.49	42'	682+00	42'	1016.15	1016.34	1016.15
1015.12	1015.31	1015.12	42'	682+25	42'			
1014.75	1014.94	1014.75	42'	682+50	42'	1015.21	1015.40	1015.21
1014.37	1014.56	1014.37	42'	682+75	42'			
1013.98	1014.17	1013.98	42'	683+00	42'	1014.27	1014.46	1014.27
1013.58	1013.77	1013.58	42'	683+25	42'			
1013.17	1013.36	1013.17	42'	683+50	42'	1013.33	1013.52	1013.33
1012.76	1012.95	1012.76	42'	683+75	42'			
1012.33	1012.52	1012.33	42'	684+00	42'	1012.39	1012.58	1012.39
1011.89	1012.08	1011.89	42'	684+25	42'			
1011.44	1011.63	1011.44	42'	684+50	42'	1011.45	1011.64	1011.45
1010.99	1011.18	1010.99	42'	684+75	42'			
1010.52	1010.71	1010.52	42'	685+00	42'	1010.51	1010.70	1010.51
1009.58	1009.77	1009.58	42'	685+50	42'	1009.56	1009.75	1009.56
1008.64	1008.83	1008.64	42'	686+00	42'	1008.62	1008.81	1008.62
1007.70	1007.89	1007.70	42'	686+50	42'	1007.68	1007.87	1007.68
1006.75	1006.94	1006.75	42'	687+00	42'	1006.74	1006.93	1006.74
1005.81	1006.00	1005.81	42'	687+50	42'	1005.80	1005.99	1005.80
1004.87	1005.06	1004.87	42'	688+00	42'	1004.86	1005.05	1004.86
1003.93	1004.12	1003.93	42'	688+50	42'	1003.92	1004.11	1003.92
1002.99	1003.18	1002.99	42'	689+00	42'	1002.97	1003.16	1002.97
1002.05	1002.24	1002.05	42'	689+50	42'	1002.03	1002.22	1002.03
1001.10	1001.29	1001.10	42'	690+00	42'	1001.09	1001.28	1001.09
1000.16	1000.35	1000.16	42'	690+50	42'	1000.15	1000.34	1000.15
999.22	999.41	999.22	42'	691+00	42'	999.21	999.40	999.21
998.28	998.47	998.28	42'	691+50	42'	998.27	998.46	998.27
997.34	997.53	997.34	42'	692+00	42'	997.33	997.52	997.33
996.40	996.59	996.40	42'	692+50	42'	996.38	996.57	996.38
995.45	995.64	995.45	42'	693+00	42'	995.44	995.63	995.44
994.51	994.70	994.51	42'	693+50	42'	994.50	994.69	994.50
993.57	993.76	993.57	42'	694+00	42'	993.56	993.75	993.56
992.63	992.83	992.63	42'	694+50	42'	992.62	992.81	992.62
991.69	991.88	991.69	42'	695+00	42'	991.68	991.87	991.68
990.75	990.94	990.75	42'	695+50	42'	990.74	990.93	990.74

WESTBOUND LANES				STATION	EASTBOUND LANES			
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE	DIST.		DIST.	MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE

SUPERELEVATION TABLES

CALC. BY D.M. DATE 2-29-88
CHKD. BY RMS DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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FAI-70-0.00
LIC-70-0.00

S = 0.0421 FT./FT.
P.C. = STA.698+22.55 P.T. = STA.711+89.22 Dc = 1° 00' △ = 13° 40' RT.

WESTBOUND LANES			DISTANCE FROM ℄ TO LT. EDGE	℄ SURVEY STATION	DISTANCE FROM ℄ TO RT. EDGE	EASTBOUND LANES		
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE				MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
990.27	990.46	990.27	42.00	695+75	42.00	990.26	990.45	990.26
989.85	989.99	989.80	42.00	696+00	42.00	989.79	989.98	989.79
989.44	989.52	989.33	42.00	696+25	42.00	989.32	989.51	989.32
989.04	989.05	988.86	42.00	696+50	42.00	988.85	989.04	988.85
988.68	988.58	988.39	42.00	696+75	42.00	988.38	988.57	988.38
988.32	988.14	987.92	42.00	697+00	42.00	987.91	988.10	987.91
987.96	987.71	987.45	42.00	697+25	42.00	987.44	987.63	987.44
987.61	987.30	986.98	42.00	697+50	42.00	986.97	987.13	986.95
987.26	986.89	986.51	42.00	697+75	42.00	986.50	986.60	986.41
986.90	986.47	986.04	42.00	698+00	42.00	986.03	986.07	985.88
			42.00	698+22.55	42.00			
986.52	986.04	985.57	41.96	698+25	41.96	985.56	985.52	985.33
986.09	985.60	985.10	41.60	698+50	41.60	985.09	984.95	984.76
985.63	985.13	984.62	41.23	698+75	41.23	984.62	984.39	984.16
985.16	984.66	984.15	40.87	699+00	40.87	984.15	983.86	983.57
984.69	984.19	983.68	40.50	699+25	40.50	983.68	983.33	982.99
984.22	983.72	983.21	40.13	699+50	40.13	983.20	982.80	982.39
983.75	983.25	982.74	39.77	699+75	39.77	982.73	982.27	981.80
983.28	982.78	982.27	39.40	700+00	39.40	982.26	981.77	981.27
982.81	982.31	981.80	39.04	700+25	39.04	981.79	981.29	980.78
982.34	981.84	981.33	38.67	700+50	38.67	981.32	980.82	980.31
981.87	981.37	980.86	38.31	700+75	38.31	980.85	980.35	979.84
981.40	980.90	980.39	37.94	701+00	37.94	980.38	979.88	979.37
980.93	980.43	979.92	37.57	701+25	37.57	979.91	979.41	978.90
980.46	979.96	979.45	37.21	701+50	37.21	979.44	978.94	978.43
979.98	979.48	978.97	36.84	701+75	36.84	978.97	978.47	977.96
979.51	979.01	978.50	36.48	702+00	36.48	978.50	978.00	977.49
979.04	978.54	978.03	36.11	702+25	36.11	978.03	977.53	977.02
978.57	978.07	977.56	35.74	702+50	35.74	977.56	977.06	976.55
978.10	977.60	977.09	35.38	702+75	35.38	977.09	976.59	976.08
977.63	977.13	976.62	35.01	703+00	35.01	976.62	976.12	975.61
977.16	976.66	976.15	34.65	703+25	34.65	976.14	975.64	975.13
976.69	976.19	975.68	34.28	703+50	34.28	975.67	975.17	974.66
976.22	975.72	975.21	33.92	703+75	33.92	975.20	974.70	974.19
975.75	975.25	974.74	33.55	704+00	33.55	974.73	974.23	973.72
975.28	974.78	974.27	33.18	704+25	33.18	974.26	973.76	973.25
974.81	974.31	973.80	32.82	704+50	32.82	973.79	973.29	972.78
974.33	973.83	973.32	32.45	704+75	32.45	973.32	972.82	972.31
973.86	973.36	972.85	32.09	705+00	32.09	972.85	972.35	971.84
973.39	972.89	972.38	31.72	705+25	31.72	972.38	971.88	971.37
972.92	972.42	971.91	31.35	705+50	31.35	971.91	971.41	970.90
972.45	971.95	971.44	30.99	705+75	30.99	971.44	970.94	970.43
971.98	971.48	970.97	30.62	706+00	30.62	970.97	970.47	969.96
971.51	971.01	970.50	30.26	706+25	30.26	970.50	970.00	969.49
971.04	970.54	970.03	29.89	706+50	29.89	970.03	969.53	969.02
970.57	970.07	969.56	29.53	706+75	29.53	969.55	969.05	968.54
970.10	969.60	969.09	29.16	707+00	29.16	969.08	968.58	968.07
969.63	969.13	968.62	28.79	707+25	28.79	968.61	968.11	967.60
969.16	968.66	968.15	28.43	707+50	28.43	968.14	967.64	967.13
968.69	968.19	967.68	28.06	707+75	28.06	967.68	967.18	966.67
968.21	967.71	967.20	27.70	708+00	27.70	967.22	966.72	966.21
967.75	967.25	966.74	27.33	708+25	27.33	966.77	966.27	965.76
967.29	966.79	966.28	26.96	708+50	26.96	966.33	965.83	965.32
966.84	966.34	965.83	26.60	708+75	26.60	965.89	965.39	964.88
966.40	965.90	965.39	26.23	709+00	26.23	965.47	964.97	964.46
965.97	965.47	964.96	25.87	709+25	25.87	965.05	964.55	964.04
965.54	965.04	964.53	25.50	709+50	25.50	964.64	964.14	963.63
965.13	964.63	964.12	25.13	709+75	25.13	964.24	963.74	963.23
964.72	964.22	963.71	24.77	710+00	24.77	963.85	963.35	962.84
964.27	963.79	963.31	24.40	710+25	24.40	963.47	962.97	962.46
963.77	963.35	962.92	24.04	710+50	24.04	963.09	962.59	962.08
963.26	962.90	962.54	23.67	710+75	23.67	962.72	962.22	961.71
962.77	962.47	962.16	23.31	711+00	23.31	962.36	961.86	961.35
962.29	962.05	961.80	22.94	711+25	22.94	962.01	961.51	961.00
961.81	961.63	961.44	22.57	711+50	22.57	961.67	961.17	960.66

S = 0.0421 FT./FT.
P.C. = STA.698+22.55 P.T. = STA.711+89.22 Dc = 1° 00' △ = 13° 40' RT.

WESTBOUND LANES			DISTANCE FROM ℄ TO LT.EDGE	℄ SURVEY STATION	DISTANCE FROM ℄ TO RT.EDGE	EASTBOUND LANES		
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE				MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
961.35	961.28	961.09	22.21	711+75	22.21	961.34	960.85	960.35
			22.00	711+89.12	22.00			
960.91	960.94	960.75	22.00	712+00	22.00	961.01	960.55	960.09
960.52	960.61	960.42	22.00	712+25	22.00	960.69	960.28	959.86
960.14	960.29	960.10	22.00	712+50	22.00	960.38	960.02	959.66
959.79	959.98	959.79	22.00	712+75	22.00	960.08	959.78	959.49
959.48	959.67	959.48	22.00	713+00	22.00	959.79	959.55	959.31
959.18	959.37	959.18	22.00	713+25	22.00	959.51	959.34	959.15
958.89	959.08	958.89	22.00	713+50	22.00	959.23	959.18	958.99
958.61	958.80	958.61	22.00	713+75	22.00	958.96	958.99	958.80
958.34	958.53	958.34	22.00	714+00	22.00	958.70	958.79	958.61
958.08	958.27	958.08	22.00	714+25	22.00	958.45	958.61	958.42
957.82	958.01	957.82	22.00	714+50	22.00	958.21	958.40	958.21
957.58	957.77	957.58	22.00	714+75	22.00	957.97	958.16	957.97
957.34	957.53	957.34	22.00	715+00	22.00	957.75	957.94	957.75
957.11	957.30	957.11	22.00	715+25	22.00	957.53	957.72	957.53
956.89	957.08	956.89	22.00	715+50	22.00	957.32	957.51	957.32
956.67	956.86	956.67	22.00	715+75				
956.47	956.66	956.47	22.00	716+00	22.00	956.91	957.10	956.91
956.07	956.26	956.07	22.00	716+50	22.00	956.50	956.69	956.50
955.67	955.86	955.67	22.00	717+00	22.00	956.09	956.28	956.09
955.27	955.46	955.27	22.00	717+50	22.00	955.68	955.87	955.68
954.87	955.06	954.87	22.00	718+00	22.00	955.27	955.46	955.27
954.47	954.66	954.47	22.00	718+50	22.00	954.85	955.04	954.85
954.07	954.26	954.07	22.00	719+00	22.00	954.44	954.63	954.44
953.67	953.86	953.67	22.00	719+50	22.00	954.03	954.22	954.03
953.27	953.46	953.27	22.00	720+00	22.00	953.62	953.81	953.62

S = 0.0316 FT./FT.
P.C. = STA.720+99.45 P.T. = STA.729+66.12 Dc = 0° 45' △ = 6° 30' RT.

WESTBOUND LANES			DISTANCE FROM ℄ TO LT.EDGE	℄ SURVEY STATION	DISTANCE FROM ℄ TO RT.EDGE	EASTBOUND LANES		
OUTSIDE EDGE	CROWN POINT	MEDIAN EDGE				MEDIAN EDGE	CROWN POINT	OUTSIDE EDGE
953.07	953.26	953.07	22.00	720+25	22.00	953.41	953.60	953.41
952.81	953.00	952.87	22.00	720+50	22.00	953.21	953.40	953.27
952.54	952.73	952.67	22.00	720+75	22.00	953.00	953.19	953.13
			22.00	720+99.45	22.00			
952.26	952.45	952.47	22.00	721+00	22.00	952.80	952.99	953.00
951.96	952.15	952.27		721+25		952.59	952.78	952.90
951.64	951.86	952.07	22.17	721+50	22.17	952.39	952.60	952.82
951.32	951.60	951.87		721+75		952.18	952.45	952.73
951.00	951.34	951.67	22.35	722+00	22.35	951.98	952.31	952.65
950.71	951.09	951.47		722+25		951.77	952.15	952.53
950.51	950.89	951.27	22.52	722+50	22.52	951.56	951.94	952.32
				722+75				
950.11	950.49	950.87	22.69	723+00	22.69	951.15	951.53	951.91
				723+25				
949.71	950.09	950.47	22.87	723+50	22.87	950.74	951.12	951.50
				723+75				
949.31	949.69	950.07	23.04	724+00	23.04	950.33	950.71	951.09
				724+25				
948.91	949.29	949.67	23.21	724+50	23.21	949.92	950.30	950.68
				724+75				
948.51	948.89	949.27	23.39	725+00	23.39	949.51	949.89	950.27
				725+25				
948.11	948.49	948.87	23.56	725+50	23.56	949.10	949.48	949.86
				725+75				
947.71	948.09	948.47	23.73	726+00	23.73	948.69	949.07	949.45
				726+25				
947.31	947.69	948.07	23.91	726+50	23.91	948.28	948.66	949.04
				726+75				
946.91	947.29	947.67	24.08	727+00	24.08	947.86	948.24	948.62
				727+25				
946.51	946.89	947.27	24.25	727+50	24.25	947.45	947.83	948.21
				727+75				
946.11	946.49	946.87	24.43	728+00	24.43	947.04	947.42	947.80
				728+25		946.84	947.22	947.60
945.71	946.09	946.47	24.60	728+50	24.60	946.63	947.01	947.39
945.51	945.89	946.27		728+75		946.43	946.81	947.19
945.37	945.73	946.07	24.77	729+00	24.77	946.22	946.57	946.92
945.30	945.59	945.88		729+25		946.02	946.31	946.60
945.24	945.47	945.70	24.94	729+50	24.94	945.82	946.05	946.28
945.20	945.39	945.58	25.00	729+66.12	25.00	945.69	945.88	946.07
945.17	945.36	945.51	25.00	729+75	25.00	945.61	945.79	945.95
945.11	945.30	945.33	25.00	730+00	25.00	945.41	945.54	945.63
945.03	945.19	945.13	25.00	730+25	25.00	945.21	945.33	945.33
944.92	945.11	944.92	25.00	730+50	25.00	945.00	945.12	945.05
				730+75	25.00	944.78	944.92	944.80
944.55	944.74	944.55	25.00	731+00	25.00	944.56	944.72	944.57
944.18	944.37	944.18	25.00	731+50	25.00	944.15	944.31	944.15
943.81	944.00	943.81	25.00	732+00	25.00	943.72	943.91	943.72
943.44	943.63	943.44	25.00	732+50	25.00	943.36	943.55	943.36
943.07	943.26	943.07	25.00	733+00	25.00	943.00	943.19	943.00
942.71	942.90	942.71	25.00	733+50	25.00	942.64	942.83	942.64
				733+97.69B				
942.35	942.54	942.35	25.00	550+00A	25.00	942.30	942.49	942.30
941.99	942.18	941.99	25.00	550+50	25.00	941.93	942.12	941.93
941.62	941.81	941.62	25.00	551+00	25.00	941.58	941.77	941.58
941.25	941.44	941.25	25.00	551+50	25.00	941.21	941.40	941.21
940.88	941.07	940.88	25.00	552+00	25.00	940.86	941.05	940.86
940.51	940.70	940.51	25.00	552+50	25.00	940.49	940.68	940.49
940.14	940.33	940.14	25.00	553+00	25.00	940.14	940.33	940.14

GENERAL SUMMARY

CALC. BY: DM DATE 2-24-88
CHKD. BY: RM DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

OHIO
FHWA REGION

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126

* CITY, STATE AND FEDERAL

ITEM	SHEET NUMBER																	TOTAL CITY, STATE, FEDERAL	TOTAL STATE & FEDERAL	ITEM	GRAND TOTAL	UNIT	DESCRIPTION
	6	7-A	10	*10	27	28	86	*86	89	* 89	106	11	13	14	117	105-A	105-B						
																							ROADWAY
202									199										199	202	199	LIN.FT.	PIPE REMOVED, 24" AND UNDER
202					2,176														2,176	202	2,176	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE
202			23,131	350														350	23,131	202	23,481	LIN.FT.	GUARDRAIL REMOVED
202							1,145												1,145	202	1,145	SQ.YD.	WEARING COURSE REMOVED
202							348,409	28,800										28,800	348,409	202	377,209	SQ.YD.	PAVEMENT REMOVED
201																			Lump	201	Lump		CLEARING AND GRUBBING
203		111			10,000		254,429	17,089								56	366	17,089	264962	203	282051	CU.YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
203		1,002				50	5834	345								7	692	345	7585	203	7930	CU.YD.	EMBANKMENT
203	0.5																		0.5	203	0.5	MILE	LINEAR GRADING
203							566,010	40,000										40,000	566,010	203	606,010	SQ.YD.	SUBGRADE COMPACTION
203					12000														12,000	203	12,000	CU.YD.	EMBANKMENT USING GRANULAR MATERIAL
404						1,500													1500	404	1500	CU.YD.	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC, As per plan
						100													100	404	100	Cu.Yd.	Bituminous Concrete for Maintaining Traffic
606			17,500	275														275	17,500	606	17,775	LIN.FT.	GUARDRAIL, TYPE 5
606			18	2														2	18	606	20	EACH	ANCHOR ASSEMBLY, TYPE A
606			21																21	606	21	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE A
606			425																425	606	425	LIN.FT.	GUARDRAIL, BARRIER DESIGN, TYPE 5
606			7																7	606	7	EACH	ANCHOR ASSEMBLY, BARRIER DESIGN, TYPE A
606			20	8														8	20	606	28	EACH	GUARDRAIL POST INSTALLED
606			18	2														2	18	606	20	EACH	ANCHOR ASSEMBLY, TYPE T
615														6,239					6,239	615	6,239	SQ.YD.	TEMPORARY PAVEMENT, CLASS A, AS PER PLAN
615														Lump					Lump	615	Lump		TEMPORARY ROADS
622																							
622					200	3,400													3600	622	3600	LIN.FT.	TEMPORARY CONCRETE BARRIER
622													1,380						1,380	622	1,380	LIN.FT.	TEMPORARY CONCRETE BARRIER, AS PER PLAN
622																							
SPEC												3							3	SPEC	3	EACH	IMPACT ATTENUATOR GREAT. SYSTEM MODEL NO. 200 200 NF6 G(cz)
622															360				360	622	360	LIN.FT.	TEMPORARY CONCRETE BARRIER, BRIDGE MOUNTED
																							DRAINAGE
602									1.1										1.1	602	1.1	CU.YD.	CONCRETE MASONRY
603									252										252	603	252	LIN.FT.	48" CONDUIT, TYPE A, 707.05 (0.138 INCHES)
603									7,008	290								290	7008	603	7298	LIN.FT.	6" CONDUIT, TYPE E, 707.19
603									785										785	603	785	LIN.FT.	6" CONDUIT, TYPE B, 707.17 OR ASTM D-3034 SDR 35
603									1,030	50								50	1030	603	1080	LIN.FT.	8" CONDUIT, TYPE F
604									1										1	604	1	EACH	CATCH BASIN NO. 2-6, AS PER PLAN
604									60	3								3	60	604	63	EACH	CATCH BASINS RECONSTRUCTED TO GRADE, AS PER PLAN
604									4										4	604	4	EACH	CATCH BASINS RECONSTRUCTED TO GRADE
604									1										1	604	1	EACH	MANHOLE NO.3 WITH FLAT SLAB TOP USING HEAVY DUTY FRAME AND COVER
605									56,803	2483								2483	56803	605	59286	LIN.FT.	6" UNCLASSIFIED PIPE UNDERDRAINS, AS PER PLAN
605									146,747	8,051								8051	146,747	605	154,798	LIN.FT.	6" SHALLOW PIPE UNDERDRAINS, AS PER PLAN
605									28,259	2,812								2,812	28,259	605	31,071	LIN.FT.	6" DEEP PIPE UNDERDRAINS, AS PER PLAN
																							EROSION CONTROL
207						87700													87,700	207	87,700	SQ.YD.	TEMPORARY SEEDING AND MULCHING
207						350													350	207	350	EACH	STRAW OR HAY BALES
601									28		553								581	601	581	CU.YD.	ROCK CHANNEL PROTECTION, TYPE B, WITH FILTER
601									449										449	601	449	CU.YD.	ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER
601									177										177	601	177	CU.YD.	ROCK CHANNEL PROTECTION, TYPE D, WITH FILTER, AS PER PLAN
601									91										91	601	91	SQ.YD.	RIPRAP USING 6" REINFORCED CONCRETE SLAB
659					500	200													700	659	700	M.GAL.	WATER
659					438,530														438,530	659	438,530	SQ.YD.	SEEDING AND MULCHING
659					39.47														39.47	659	39.47	TON	COMMERCIAL FERTILIZER
659					197.34														197.34	659	197.34	TON	AGRICULTURAL LIMING
659					1,000														1,000	659	1,000	M.SQ.FT.	MOWING

Rev. 4-8-88

GENERAL SUMMARY

CALC BY D.M. DATE 2-29-88 | CHKD BY Gene DATE 3-4-88 | FAI-70-0.00 LIC-70-0.00 | OHIO FHWA REGION 5 | 49/126

* City, State and Federal

ITEM	SHEET NUMBER																		TOTAL CITY, STATE, FEDERAL	TOTAL STATE & FEDERAL	ITEM	GRAND TOTAL	UNIT	DESCRIPTION
	7-A	7-B	12	14	23	25	26	27	28	*28	106	29	30B	*30B	86	*86	87	88	117						
																									PAVEMENT
301															179,217	13,156				13,156	179,217	301	192,373	CU.YD.	BITUMINOUS AGGREGATE BASE: AC-20
304				331											64,457	4,711				4,711	64,788	304	69,499	CU.YD.	AGGREGATE BASE, AS PER PLAN
SPEC.								2,000													2,000	SPEC.	2,000	SQ.YD.	PARTIAL DEPTH PAVEMENT JOINT REPAIR (SEE PROPOSAL NOTE)
407															3213						3,213	407	3,213	GAL.	TACK COAT, AS PER PLAN
617															15,013	867				867	15,013	617	15,880	CU.YD.	COMPACTED AGGREGATE, TYPE A
846															20,812	1,389				1,389	20,812	846	22,201	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE I, AC-20
846															29,121	1,944				1,944	29,121	846	31,065	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, AC-20
305	1,262																				1,262	305	1,262	SQ.YD.	9" CONCRETE BASE
617									388	12										12	388	617	400	M.GAL.	WATER
408															232,408	16,960				16,960	232,408	408	249,368	GAL.	BITUMINOUS PRIME COAT
622	2497																				2497	622	2497	Lin.Ft.	CONCRETE BARRIER TYPE D
																									TRAFFIC CONTROL
SPEC.													2,293	180						180	2,293	SPEC.	2,473	EACH	RAISED PAVEMENT MARKERS
614						17,907															17,907	614	17,907	EACH	TEMPORARY RAISED PAVEMENT MARKERS TYPE B
614							388														388	614	388	EACH	BARRIER REFLECTORS, TYPE A
614							354														354	614	354	EACH	BARRIER REFLECTORS, TYPE B
614			147,910																		147,910	614	147,910	LIN.FT.	ASPHALT CURB DIVIDER WITH DELINEATION
614																		321			321	614	321	LIN.FT.	TEMPORARY STOP LINES, CLASS I
614																		119.2			119.2	614	119.2	MILE	TEMPORARY EDGE LINES, CLASS I
614																		14,507			14,507	614	14,507	LIN.FT.	TEMPORARY CHANNELIZING LINES, CLASS I
614																		40.0			40.0	614	40.0	MILES	TEMPORARY LANE LINES, CLASS II
620												348									348	620	348	EACH	DELINEATOR REMOVED FOR STORAGE
620												351									351	620	351	EACH	DELINEATOR, TYPE C, DESIGN 2, FLEXIBLE POST MOUNTED
620												38									38	620	38	EACH	DELINEATOR, TYPE C, DESIGN 4, FLEXIBLE POST MOUNTED
620												105									105	620	105	EACH	DELINEATOR, TYPE D, DESIGN 2, FLEXIBLE POST MOUNTED
625					LUMP																	625	LUMP		TEMPORARY LIGHTING
Spec.														50							50	SPEC.	50	EACH	PRISMATIC RETRO-REFLECTOR
630																			169		169	630	169	SQ.FT.	SIGNS, EXTRUSHEET, TYPE G
630																			2		2	630	2	EACH	OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC-18.24
630																			2		2	630	2	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE
630																			2		2	630	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND STORAGE, TYPE TC-18.24
631																			2		2	631	2	EACH	SIGNS WIRED, OVERPASS STRUCTURE MOUNTED
631																			4		4	631	4	EACH	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21, WITH 175 WATT LAMP
631																			4		4	631	4	EACH	REMOVAL OF LUMINAIRE AND STORAGE
847																	31.2				31.2	847	31.2	MILE	LANE LINE, 947.02
847																	57.5				57.5	847	57.5	MILE	EDGE LINE, 947.02
847																	1,440				1,440	847	1,440	LIN.FT.	TRANSVERSE LINE, 947.02
847																	8,594				8,594	847	8,594	LIN.FT.	CHANNELIZING LINE, 947.02
847																		221			221	847	221	LIN.FT.	STOP LINE, 947.02
847																		5			5	847	5	EACH	LANE ARROW, 947.02
SPEC.		6,480																			6,480	SPEC.	6,480	LIN.FT.	RUMBLE STRIPS
																									FOR QUANTITIES FOR STRUCTURES 20' AND OVER SEE SHEET 107
SPEC								600														SPEC	600	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR
614					LUMP						Lump											614	LUMP		MAINTAINING TRAFFIC
619								LUMP														619	LUMP		FIELD OFFICE
623																						623	LUMP		CONSTRUCTION LAYOUT STAKES
624																						624	LUMP		MOBILIZATION

IR-70-7(101)117
CALC. BY
DATE 2-29-88
CHECK. BY
DATE 3-4-88
FHWA REGION 5
STATE OHIO
PROJECT
50
126
FAI - 70 - 0.00
LIC - 70 - 0.00
EQUATION
Station 641+09.49 Back =
Station 0+00 Ahead
Begin Project
Sta. 0+00
S.L.M. 0.00
B.M. □ S. SIDE OF S. SIGN POLE BASE FOR CO. LINE SIGN STA. 0+00
ELEV. 838.79
U-Turn Median Opening, For details, see sheet Nº. 8.
NOTE:
Item 606 Guardrail Posts Installed as per Std. Drwg. GR-6A. For quantities see sheet 9.
Westbound Lanes
Eastbound Lanes
Survey and Const. I-70
Sta. 4+00
S-85°-41'-10"E
Exist C.B.
Median
MATCH LINE 16+00
BEGIN WORK
STA. 586+50
(See Sheet 15)
B.M. SP. IN N. SIDE #210A60
150' RT. STA. 0+00 ELEV. 839.17
FRANKLIN CO.
FAIRFIELD CO.
Exist. 2½" Asph. Conc.
Exist. 3" Asph. Conc. on Aggr.
Exist. 9" Item 451
TYPICAL SECTION ADJOINING PAVEMENT STA. 0+00 (Ahead)
P.C. 25+35.79
P.C. Sta. 25+35.79
MATCH LINE 31+00
P.O.T. Sta. 0+00
P.O.T. Sta. 10+00
P.O.T. Sta. 20+00
"TYPICAL FOR ALL PLAN SHEETS"
Guardrail as shown on plan sheets is for graphic purposes only. All guardrail shall be placed as shown on sheet 9.
NOTE: Existing approach slabs shall have existing asphalt removed and resurfaced with 1½" item 846 asphalt concrete surface course, type I, AC-20.
NOTE: For pavement elevations see sheet no. 31-33
For guardrail quantities and details see sheet no. 9-10
For drainage details see sheet no. 91
℄ Curve Data
P.I. Sta. 32+89.40
Δ = 21°-50'-15" Lt.
Dc = 1°-28'
R = 3,906.53'
T = 753.61'
E = 72.02'
L = 1488.92'
Columbus Corp.
P.T. Sta. 40+24.71
P.T. 40+24.71
Begin Taper Sta. 41+62
For Acceleration Lane details see sheet 68
Appr. slab
Bridge Limits, for bridge details see sheets 106-118
Exist Bridge Nº. FAI-70-0084L
Exist Bridge Nº FAI-70-0084R
Sta. 44+43.0 R&L
Sta. 45+57.0 R&L
MATCH LINE 46+00
S 85°-41'-10"E
N 72-28'-35"E
P.I. Sta. 32+89.40
Exist. sign
Exist. Pull Box
Exist. conduit
B.M. SP. IN W. SIDE OF 24" CHERRY STA. 36+06 ELEV. 849.39

0+00-46+00

MICROFILMED
AUG 28 1992
FHWA REGION | STATE | PROJECT
5 | OHIO
51
126
FAI - 70 - 0.00
LIC - 70 - 0.00
CALC. BY
DATE
CHECK. BY
DATE
NOTE: For acceleration lane detail see sheet 68
NOTE: Existing Catch Basin, for details see sheet 92
NOTE: For Ramp A details see sheet 70
Sta. 53+62.0 ℄ IR-70 = Sta. 53+62.26 Ramp 'A'
T.S. Sta. 56+62.26
S.E. Sta. 58+62.26
RAMP "A"
℄ Survey and Construction
NOTE: Item 606 Guardrail Posts Installed as per Std. Drwg. GR-6A. For quantities see sheet 9.
Westbound Lanes
Eastbound Lanes
MATCH LINE 46+00
MATCH LINE 61+00
MATCH LINE 76+00
MATCH LINE 91+00
Median
℄ Survey & Construction I-70
℄ Survey and Construction I-70
Exist. C.B.
N 72°-28'-35" E
Exist. Tower Lighting
Begin Taper Westbound Lane Sta. 54+00
Circuit A
Existing conduit
Begin Taper Sta 46+75
Exist. Pole Box
Exist. Conduit
NOTE: For deceleration lane details see sheet 68.
Sta. 50+20.27 ℄ IR-70 = Sta. 50+20.99 Ramp 'E'
RAMP "E"
Exist. Overhead Sign
Exist. Pole Box
Sta. 57+29.44 ℄ IR-70 = Sta. 57+29.44 Ramp 'D'
Begin Taper Sta. 57+29.44
℄ Survey and Const.
NOTE: For Ramp E details see sheet 68-69
NOTE: For Ramp B Details see sheet 70-71
RAMP "B"
℄ Survey and Const.
I.P.
P.O.T. STA. 50+00
P.O.T. STA. 70+00
P.O.T. STA. 60+00
P.O.T. STA. 90+00
See sheet 70 for location of existing conduit
NOTE: Existing approach slabs shall have existing asphalt removed and resurfaced with 1 1/2" Item 846 Asphalt Concrete Surface Course, Type I, AC-20
Appr. slab
Bridge Limits, for bridge details see sheets 106-118
Exist. Bridge Nº FAI-70-0119 L
Exist. Bridge Nº. FAI-70-0119 R
End Taper Westbound Lanes Sta. 62+40
Circuit 'A'
Sta. 62+81.11 L
Sta. 62+82.70 R
Sta. 64+60.21 L
Sta. 64+65.80 R
Exist. Pole Box
Exist. C.B.
Exist. Tower Lighting
NOTE: Item 606 Guardrail Posts installed as per Std. Drwg. GR-6A. For quantities see sheet 9.
Exist. Overhead Sign
Begin Taper Eastbound Lanes Sta. 66+75
Circuit "B"
℄ Survey and Construction I-70
N 72°-28'-35" E
RAMP "D"
℄ Survey and Const.
NOTE: For Ramp D details see sheet 69
Exist. Catch Basin, For Details See Sheet 92
NOTE: For deceleration lane details see sheet 69
Circuit "A"
See sheet 69 for location of existing conduit
B.M. ☐ ON N.E. COR. OF N.E. WING E.B. LANE 24'RT STA. 64+64 ELEV. 872.65
NOTE: For deceleration lane details see sheet 71
NOTE: For pavement elevations see sheet no. 33-34
For guardrail quantities and details see sheet no. 9-10
For drainage details see sheet no. 92
Sta. 78+50 ℄ IR-70 = Sta. 78+49.28 Ramp 'B'
End Taper Sta. 81+95.27
RAMP 'B'
Exist. Tower Lighting
Exist. conduit
End Taper Eastbound Lanes Sta. 78+75
Circuit B
Exist. Pole Box
℄ Survey and Construction I-70
Exist. C.B.
N 72°-28'-35" E
RAMP "C"
℄ Survey and Const.
NOTE: For details of Ramp C see sheet Nº 69&71
Sta. 80+75.0 ℄ IR-70 = Sta. 80+74.74 Ramp 'C'
NOTE: For acceleration lane details see sheet no. 71

46+00 - 91+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

52
126

FAI-70- 0.00
LIC-70- 0.00

CALC. BY D.M
DATE 2-29-88
CHECK. BY RLM
DATE 3-4-88

MATCH LINE 91+00
Westbound Lanes 24'
Median 42'
Eastbound Lanes 24'
92 93 94 95 96 97 98 99 100 101 102 103 104 105
℄ Survey and construction IR-70
Exist. C.B.
N. 72° 28' 35" E.
MATCH LINE 106+00

19G
End Taper Sta. 92+75
12G

19G
For U-turn Median Opening see sheet 8

I. P.
℄ Survey & Constr I-70(C)
137.42'
115 90° 116
129.06'
P.C. STA. 115+56.51
I. P.
P.C. 115+56.51

MATCH LINE 106+00
Westbound Lanes 24'
Median 42'
Eastbound Lanes 24'
Sta. 109+50
107 108 109 110 111 112 113 114 115 116 117 118 119 120
℄ Survey and construction IR-70
N. 72° 28' 35" E.
MATCH LINE 121+00

B.M. SP. IN E. SIDE ℄ #248A116 150'RT
STA. 114+55 ELEV. 941.70

NOTE: For pavement elevations
see sheet no. 34-35
For guardrail quantities and details
see sheet no. 9-10
For drainage details
see sheet no. 93

℄ Curve Data
P.I. Sta. 126+86.88
△ = 22° 19' 15" Lt.
Dc = 1° 00'
R = 5,729.58'
T = 1,130.37'
E = 110.44'
L = 2,232.08'

MATCH LINE 121+00
Westbound Lanes 24'
Median 42'
Eastbound Lanes 24'
122 123 124 125 126 127 128 129 130 131 132 133 134 135
Exist. C.B.
Sta. 125+64.84
℄ Survey and construction IR-70
MATCH LINE 136+00

N. 72° 28' 35" E.
N. 50° 09' 20" E.
LICKING CO.
FAIRFIELD CO.
FAI-70- 2.38
LIC-70-0.00
P.I. Sta. 126+86.88

91+00- 136+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

53
126

FAI-70 - 0.00
LIC-70 - 0.00

CALC. BY D.M.
DATE 2-29-88
CHECK. BY R.M.
DATE 3-4-88

℄ Survey & Constr. I-70
137 138
90°
P.T. STA. 137+88.59
117.44'
I.P.
25.90'
I.P.

P.T. STA. 137+88.59

EQUATION STA. 143+21.06 BK. = STA. 250+00 AHD.

MATCH LINE 136+00

Westbound Lanes 24'
Median 42'
Eastbound Lanes 24'

137 138 139 140 141 142 143 251 252 253 254 255 256 257

Exist. C.B.

N. 50°09'20" E.

℄ Survey and construction IR-70

MATCH LINE 258+00

℄ Survey & Constr. I-70
259 261
90°
P.O.T. STA. 260+00
114.97'
I.P.
27.83'
I.P.

Westbound Lanes 24'
Median 42'
Eastbound Lanes 24'

259 260 261 262 263 264 265 266 267 268 269 270 271 272

Exist. C.B.

N. 50°09'20" E.

℄ Survey and construction IR-70

20G 21G 24G 25G

25' Appr. slab
Bridge Limits for details see sheets 106 - 118
25' Appr. slab

Exist. Bridge No. LIC-70-0074L

Exist. C.B.

Sta. 271 + 09.07 L
Sta. 271 + 14.07 R

Sta. 272 + 71.59 Rt.
Sta. 272 + 76.59 Lt.

Exist. Bridge No. LIC-70-0074 R

MATCH LINE 272+00

NOTE:
Existing approach slabs shall have existing asphalt removed and be resurfaced with 1½" Item 846, Asphalt Concrete Surface Course, Type I, AC-20.

22G

Bridge Limits for details see sheets 106 - 118

25' Appr. slab

B.M. □ ON S.W. COR. OF S.W. WING OF E.B. BR. LIC-70-0074 R
ELEV. 1007.04

NOTE: For pavement elevations see sheet no. 35 - 37
For guardrail quantities and details see sheet no. 9-10
For drainage details see sheet no. 94

I.P.
131.87'
℄ Survey & Constr. I-70
274 276
90°
P.O.T. STA. 275+00
151.71'
I.P.

MATCH LINE 273+00

21G

Westbound Lanes 24'
Median 42'
Eastbound Lanes 24'

Exist. C.B.

25G

274 276 277 278 279 280 281 282 283 284 285 286 287

Exist. C.B.

N. 50°09'20" E.

℄ Survey and construction IR-70

MATCH LINE 288+00

25' Appr. slab

23G

℄ Survey & Constr. I-70
284 285
90°
P.C. STA. 284 91.79
140.71'
137.14'

P.C. STA. 284+91.79

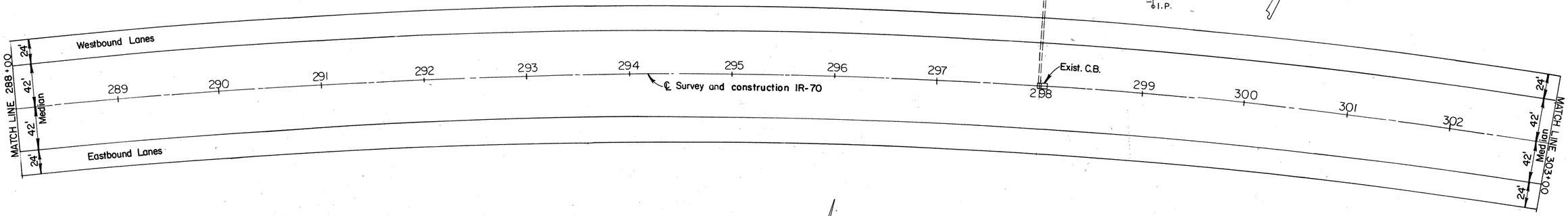
136+00 - 288+00

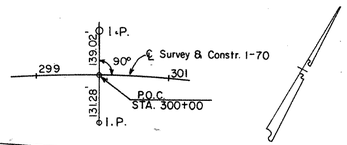
FHWA REGION	STATE	PROJECT	
5	OHIO		

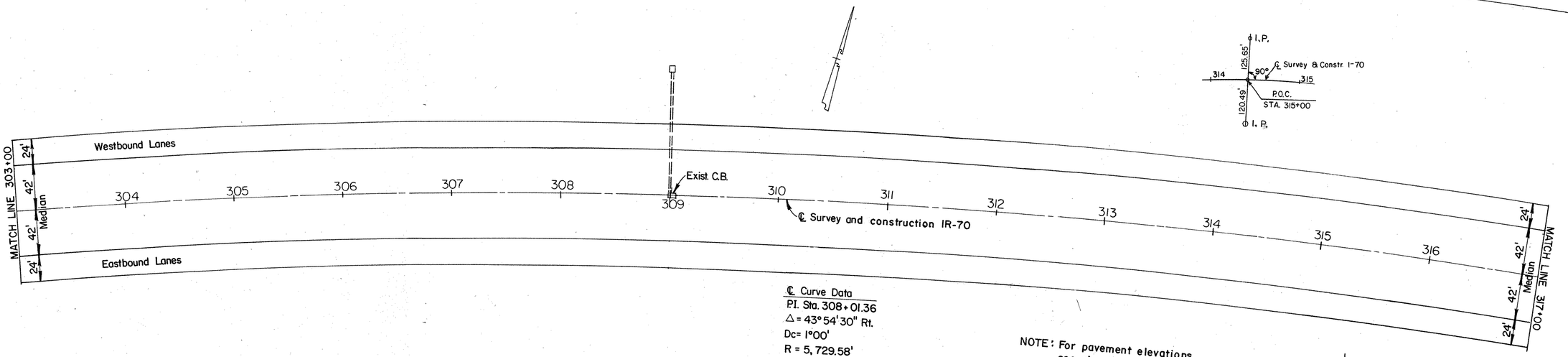
54
126

FAI - 70 - 0.00
LIC - 70 - 0.00

CALC. BY D.M.
DATE 1-29-88
CHECK. BY RM
DATE 3-4-88



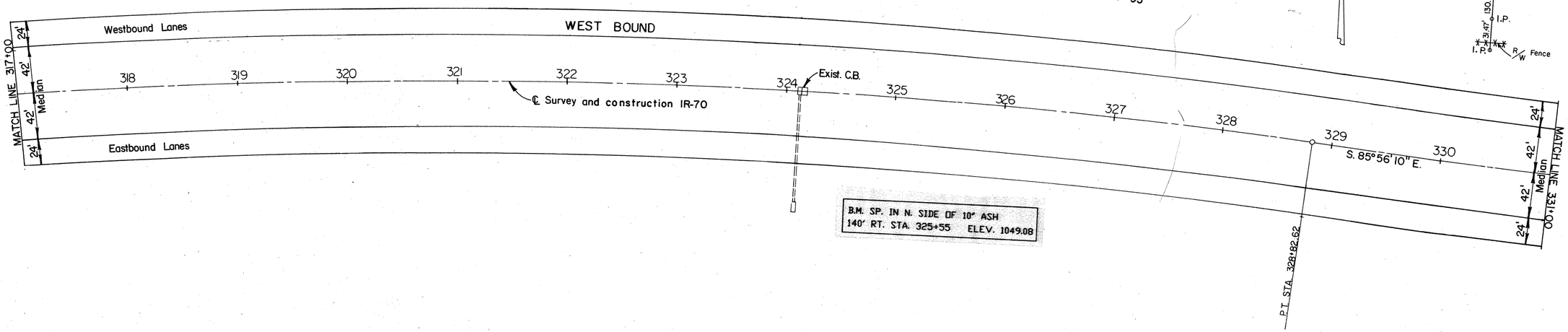


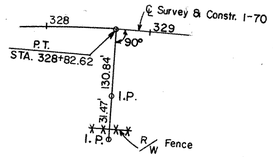


℄ Curve Data
P.I. Sta. 308+01.36
△ = 43°54'30" Rt.
Dc= 1°00'
R = 5,729.58'
T = 2,309.57'
L = 4,390.83'
E = 447.98'

NOTE: For pavement elevations see sheet no. 37-38

For drainage details see sheet no. 95





B.M. SP. IN N. SIDE OF 10" ASH
140' RT. STA. 325+55 ELEV. 1049.08

288+00 - 331+00

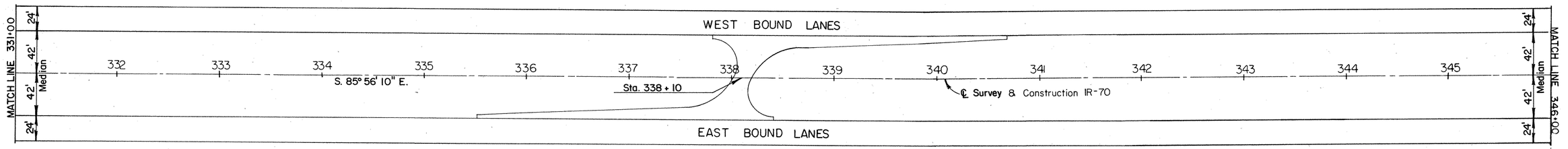
FHWA REGION	STATE	PROJECT	
5	OHIO		

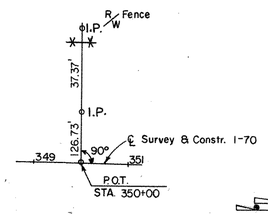
55
126

FAI - 70 - 0.00
LIC - 70 - 0.00

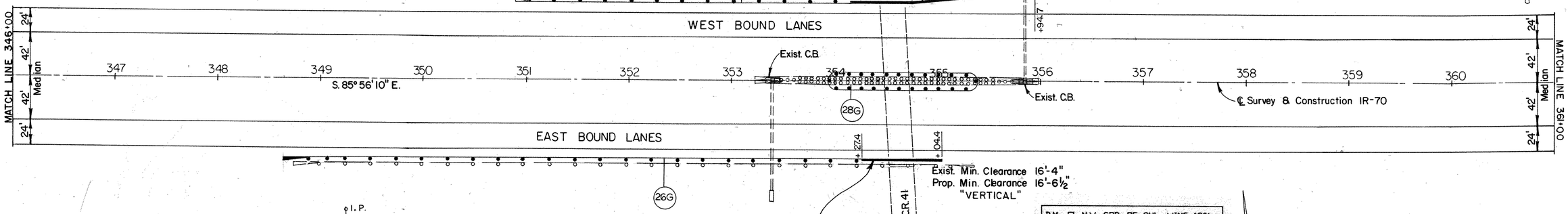
CALC. BY D.W
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

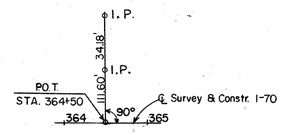
NOTE:
For U-turn median opening
details see sheet 8 .





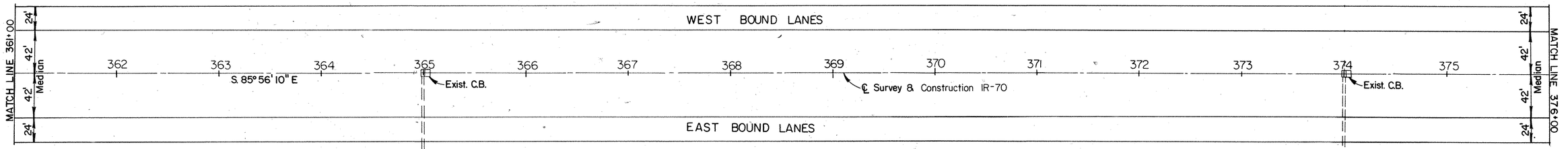
NOTE: FOR DETAILS & QUANTITIES OF
ITEM 622 CONCRETE BARRIER
TYPE D. SEE SHEET 7-A





B.M. □ N.W. COR. OF CUL. WING 120'.
RT. STA. 355+18 ELEV. 1046.68

NOTE: FOR DETAILS & QUANTITIES OF
ITEM 622 CONCRETE BARRIER
TYPE D. SEE SHEET 7-A



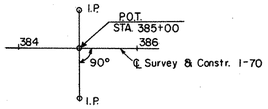
NOTE: For pavement elevations
see sheet no. 38-39
For guardrail quantities and details
see sheet no. 9-10
For drainage details
see sheet no. 96

331+00 - 376+00

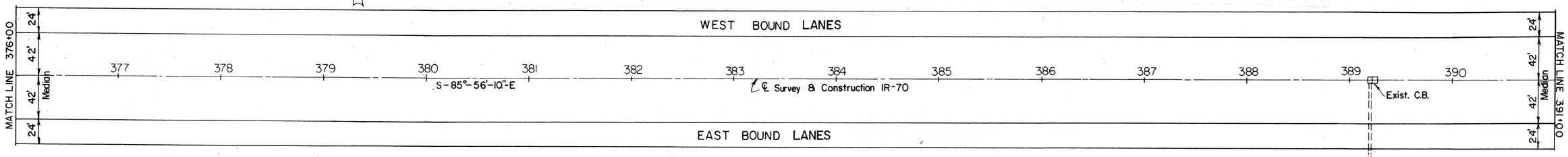
FHWA REGION	STATE	PROJECT	
5	OHIO		

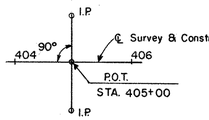
FAI - 70 - 0.00
LIC - 70 - 0.00

CALC. BY D.m
DATE 2-29-88
CHECK. BY R.m
DATE 3-4-88

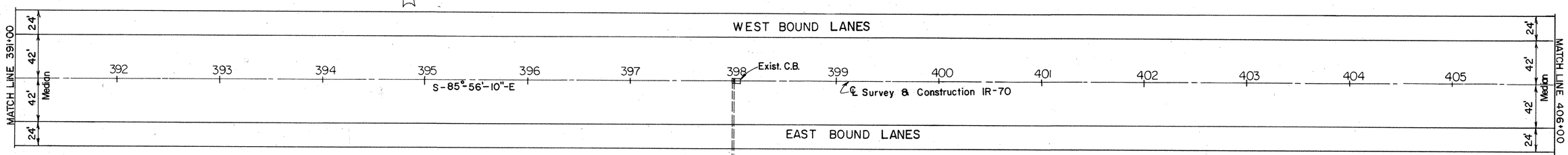


B.M. ◻ N.W. COR. OF CONC. WING FOR CUL. 96' RT. STA. 388+50 ELEV.1060.00

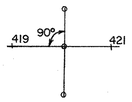


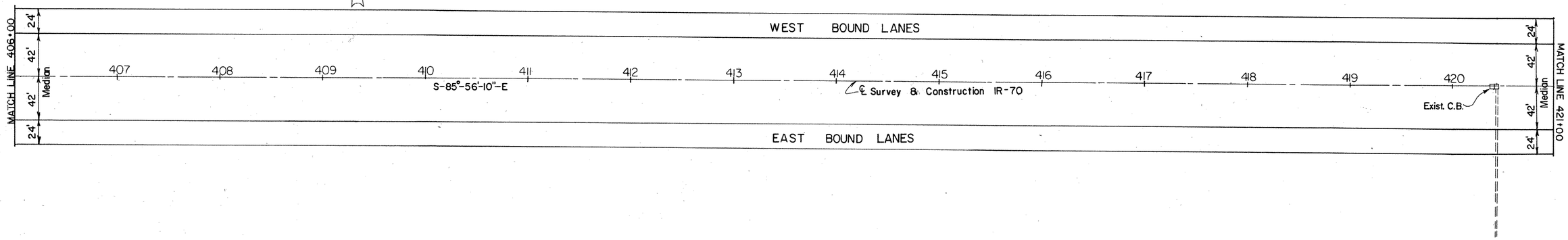


B.M. PAINT MARK S.E. COR. CONC. C.B.
3.0' RT. STA. 389+25± ELEV. 1059.69



NOTE: For pavement elevations
see sheet no. 39-40
For drainage details
see sheet no. 97





376+00-421+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI - 70 - 0.00
LIC - 70 - 0.00

57
126

CALC. BY D.M.
DATE 2-29-88
CHECK. BY R.M.
DATE 3-4-88

B.M. SP. IN W. SIDE OF ℄ #644-369
138' LT. STA. 424+70 ELEV.1071.50

NOTE: FOR DETAILS & QUANTITIES OF ITEM 622 CONCRETE BARRIER TYPE D. SEE SHEET 7-A

30G

"VERTICAL" Exist. Min. Clearance 16'-4"
Prop. Min. Clearance 16'-6½"
+56.7

76.7

31G

MATCH LINE 421+00

WEST BOUND LANES

24' | 42' Median | 42' | 24'

422 423 424 425 426 427 428 429 430 431 432 433 434 435

Exist. C.B.

S-85-56'-10"-E

Exist. C.B.

℄ Survey & Construction IR-70

EAST BOUND LANES

MATCH LINE 436+00

+15.3

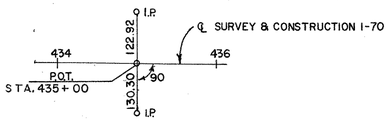
"VERTICAL" Exist. Min. Clearance 16'-5"
Prop. Min. Clearance 16'-7½"

T.R. 163

+35.3

29G

NOTE: FOR DETAILS & QUANTITIES OF ITEM 622 CONCRETE BARRIER TYPE D. SEE SHEET 7-A



NOTE: For U-TURN details see sheet 8

MATCH LINE 436+00

WEST BOUND LANES

24' | 42' Median | 42' | 24'

437 438 439 440 441 442 443 444 445 446 447 448 449 450

Exist. C.B.

S-85°-56'-10"-E

℄ Survey & Construction IR-70

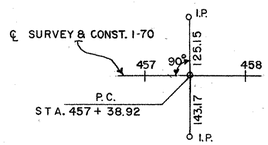
Sta. 450+25

EAST BOUND LANES

MATCH LINE 451+00

MATCH LINE 441+00

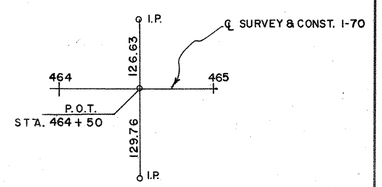
℄ Curve Data
P.I. Sta. 458+48.92
△ = 0°-22'-00" Lt.
D_c = 0°-10'-00
R = 34,377.47'
T = 110.00'
L = 220.00'
E = 0.18'



P.C. STA. 457+38.92

P.T. STA. 459+58.92

Begin Taper Sta. 463+69.44



MATCH LINE 451+00

WEST BOUND LANES

24' | 42' Median | 42' | 24'

452 453 454 455 456 457 458 459 460 461 462 463 464 465

S-85°-56'-10"-E

P.I. Sta. 458+48.92

S-85°-56'-10"-E

S-86°-18'-10"-E

S-86°-18'-10"-E

℄ Survey & Construction IR-70

Exit. C.B.

EAST BOUND LANES

MATCH LINE 466+00

B.M. SP. N. SIDE ℄ #644A4-33
160' RT. STA. 456+75 ELEV.1079.84

NOTE: For pavement elevations
see sheet no. 40-41
For guardrail quantities and details
see sheet no. 9-10
For drainage details
see sheet no. 98

421+00 - 466+00

CALC. BY	D.su
DATE	2-29-88
CHECK. BY	RM
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI -70 -0.00
LIC -70 -0.00

NOTE: For acceleration lane details see sheet 72

NOTE: For details of Ramp A see sheet 72-73

Sta. 15+49.67 Ramp 'A'
Sta. 475+69.44 ℄ IR-70

℄ Survey and Const. Ramp A

RAMP 'A'

MATCH LINE 466+00

WEST BOUND LANES

24' | 42' Median | 24'

467 468 469 470 471 472 473 474 475 476 477 478 479 480

Exist. C.B.

S. 86°18'10" E.

℄ Survey & Construction IR-70

Exist. C.B.

Exist. C.B.

EAST BOUND LANES

MATCH LINE 481+00

MATCH LINE 481+00

36-G

Begin Taper
Sta. 471+54.73

NOTE: FOR DETAILS & QUANTITIES OF ITEM 622 CONCRETE BARRIER TYPE D. SEE SHEET 7-A

52-G

S.R. 310

"VERTICAL"
Exist. Min. Clearance 16'-3"
Proposed Min. Clearance 16'-5½"

NOTE: For deceleration lane details see sheet 72

Sta. 0+00 Ramp 'D' =
Sta. 475+00 ℄ IR-70

NOTE: For details of Ramp D see sheet 72-73

℄ Survey and Const. Ramp D

RAMP 'D'

NOTE: For details of Ramp B see sheet 74-75

I.P.
133.15
479 481
182.36
P.O.T. STA 480+00
I.P.
℄ SURVEY & CONST. I-70

RAMP 'B'

WEST BOUND LANES

+32.1

+52.1

482 483 484 485 486 487 488 489 490 491 492 493 494 495

S. 86°18'10" E.

Exist. C.B.

32G

℄ Survey & Construction IR-70

EAST BOUND LANES

+63.9

Exist. Min. Clearance 16'-5"
Proprosed Min. Clearance 16'-7½"
"VERTICAL"

+83.9

34G

S.R. 310

NOTE: FOR DETAILS & QUANTITIES OF ITEM 622 CONCRETE BARRIER TYPE D. SEE SHEET 7-A

B.M. □ ON S.E. COR. OF CUL.WING
300' LT. STA. 490+05 ELEV. 1066.46

NOTE: For details of Ramp C see sheet 74-75

RAMP 'C'

I.P.
166.94
494 90° 496
163.17
POT STA. 495+00
I.P.
℄ SURVEY & CONST. I-70

Sta. 500+75.0 ℄ IR-70
Sta. 0+00.0 Ramp 'B'

NOTE: For deceleration lane details see sheet 75

End Taper
Sta. 504+20

℄ Survey and Const. Ramp B

RAMP 'B'

WEST BOUND LANES

MATCH LINE 496+00

497 498 499 500 501 502 503 504 505 506 507 508 509 510

Exist. C.B.

S. 86°18'10" E. S. 86°15'00" E.

+00

℄ Survey & Construction IR-70

MATCH LINE 511+00

EAST BOUND LANES

RAMP 'C'

9 10 11 12

℄ Survey and Const. Ramp C

Sta. 500+00 ℄ IR-70 =
Sta. 12+02.02 Ramp C

NOTE: For acceleration lane details see sheet 75

NOTE: For pavement elevations see sheet no. 41-42
For guardrail quantities and details see sheet no. 9-10
For drainage details see sheet no. 99

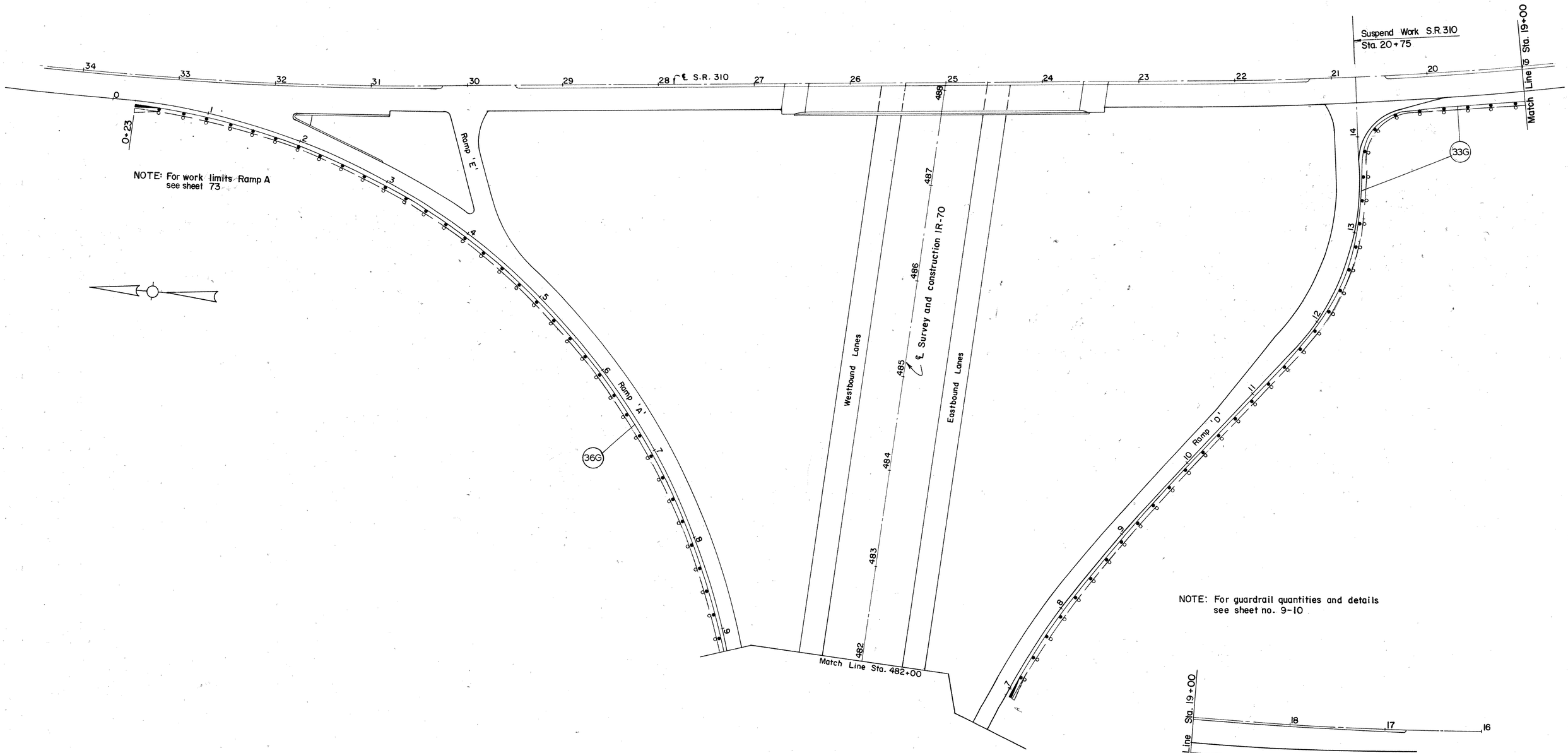
466+00-511+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

59
126

FAI - 70-0.00
LIC-70-0.00

CALC. BY D.M.
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88



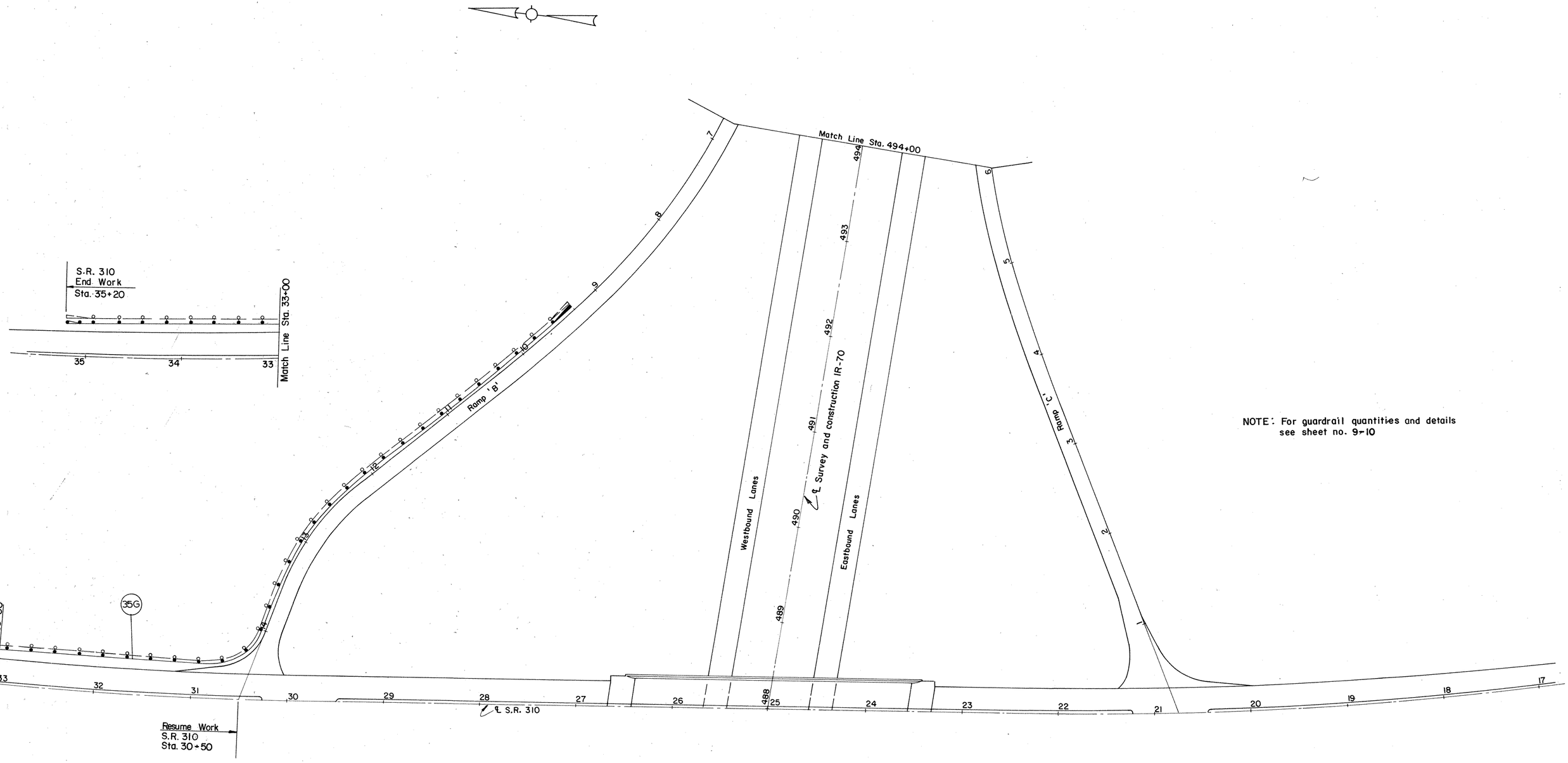
S.R. 310 INTERCHANGE (GUARDRAIL ONLY)

FHWA REGION	STATE	PROJECT	
5	OHIO		

60
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D.M.
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88



NOTE: For guardrail quantities and details see sheet no. 9-10

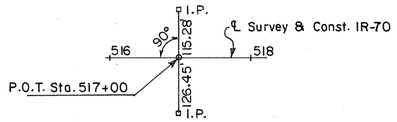
S.R. 310 INTERCHANGE (GUARDRAIL ONLY)

FHWA REGION	STATE	PROJECT	
5	OHIO		

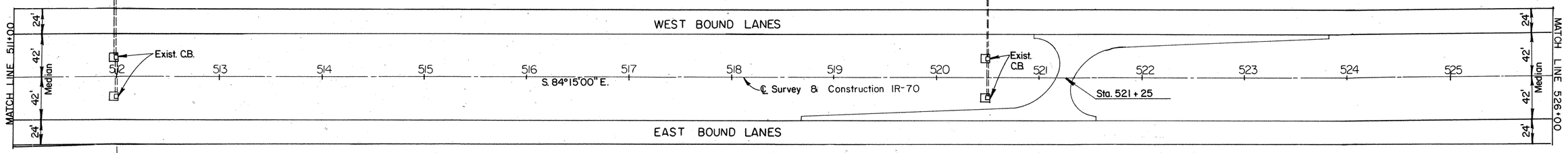
61
126

FAI -70 - 0.00
LIC -70 - 0.00

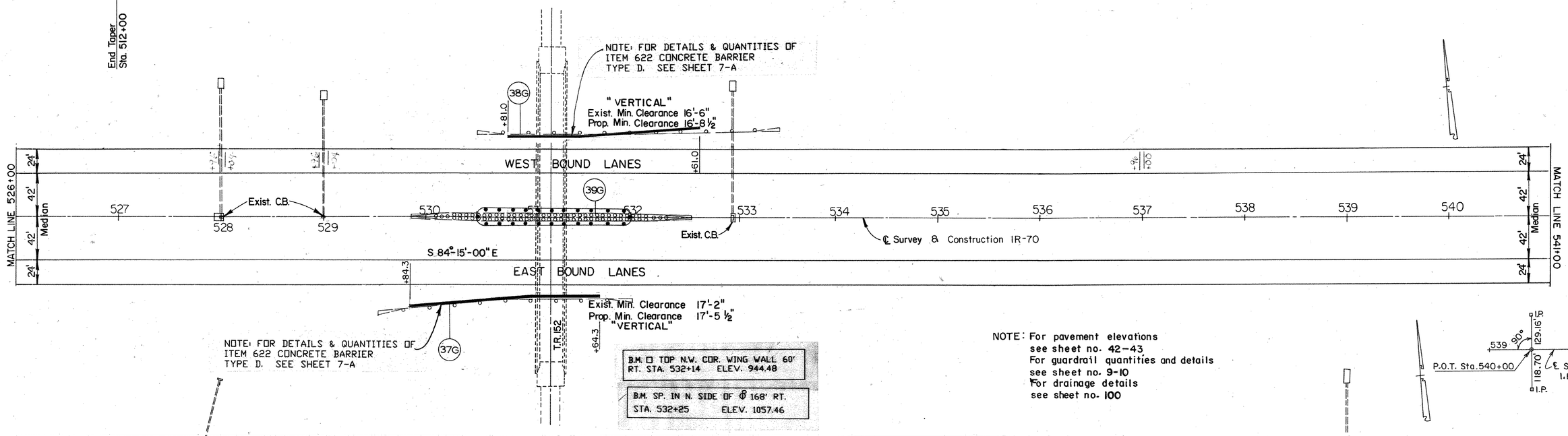
CALC. BY DM
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88



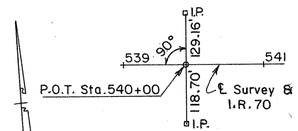
NOTE:
For U-turn Median Opening details
see sheet 8 .

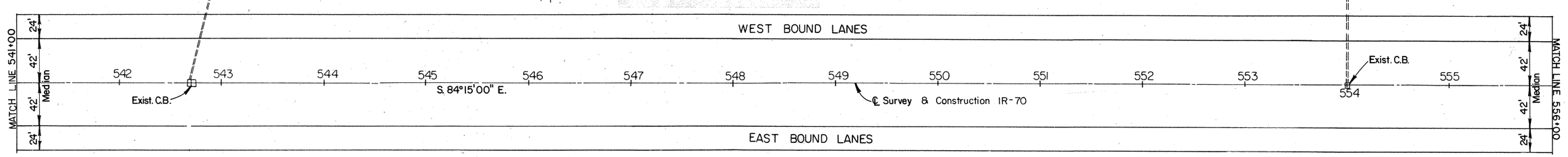


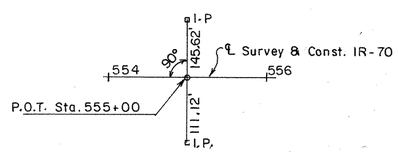
End Taper
Sta. 512+00



NOTE: For pavement elevations
see sheet no. 42-43
For guardrail quantities and details
see sheet no. 9-10
For drainage details
see sheet no. 100







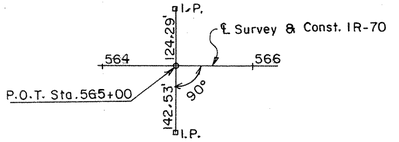
511+00 - 556+00

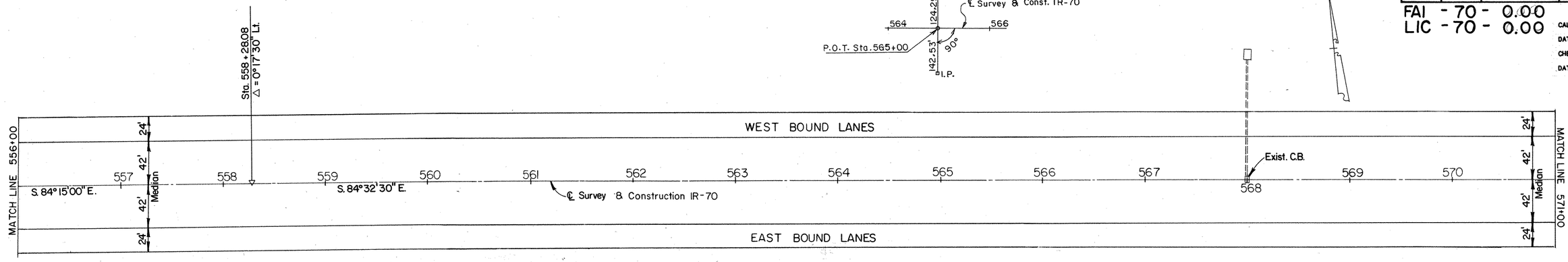
FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI - 70 - 0.00
LIC - 70 - 0.00

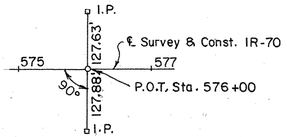
62
126

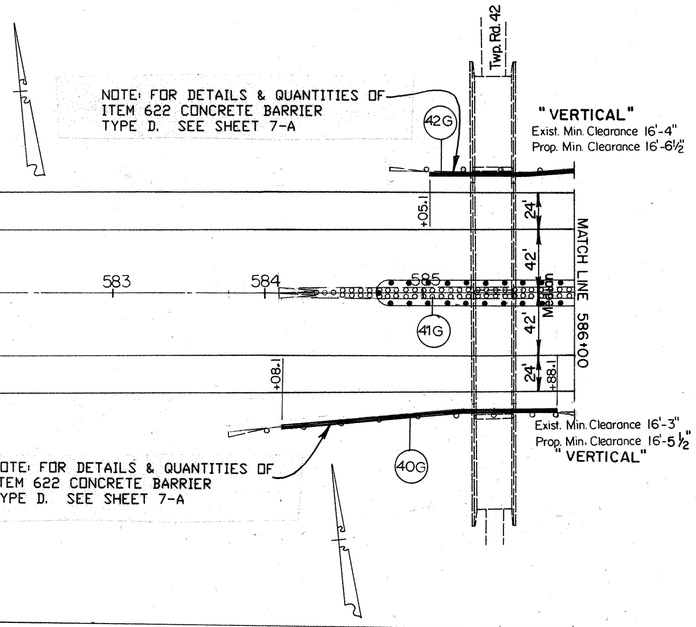
CALC. BY DJM
DATE 2-29-88
CHECK. BY RWT
DATE 3-4-88

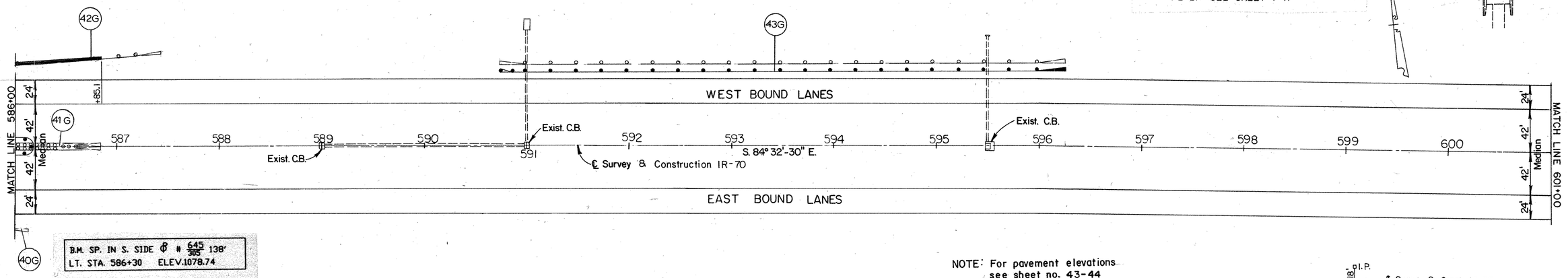




B.M. □ N.W. COR. OF WING FOR CUL.
105' RT. STA. 556+15 ELEV. 1065.09

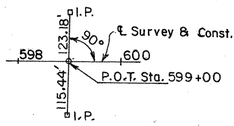






B.M. SP. IN S. SIDE ℄ # 645/305 138'
LT. STA. 586+30 ELEV. 1078.74

NOTE: For pavement elevations see sheet no. 43-44
For guardrail quantities and details see sheet no. 9-10
For drainage details see sheet no. 101



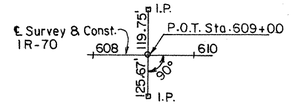
556+00 - 601+00

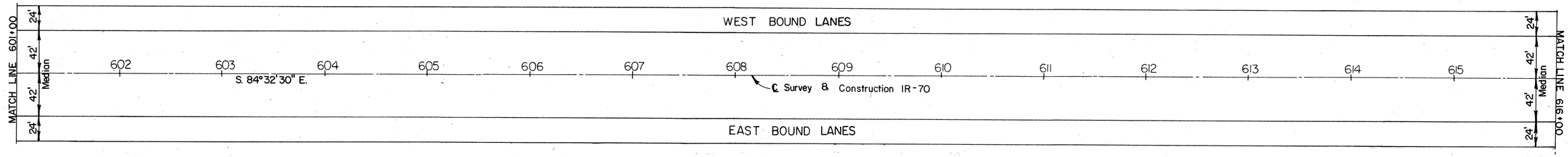
FHWA REGION	STATE	PROJECT	
5	OHIO		

63
126

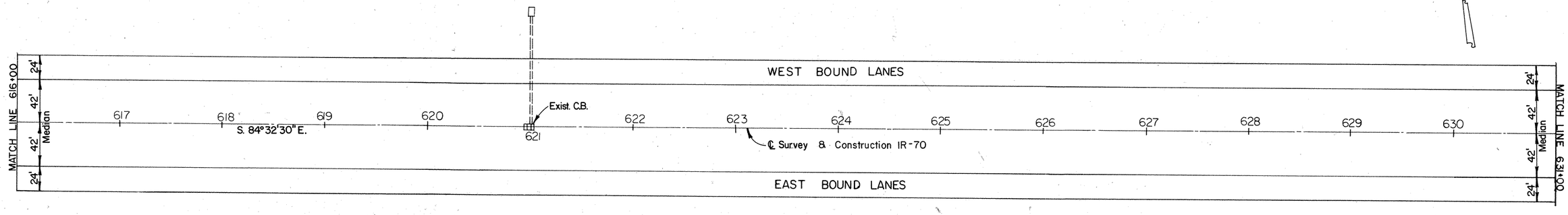
FAI - 70 - 0.00
LIC - 70 - 0.00

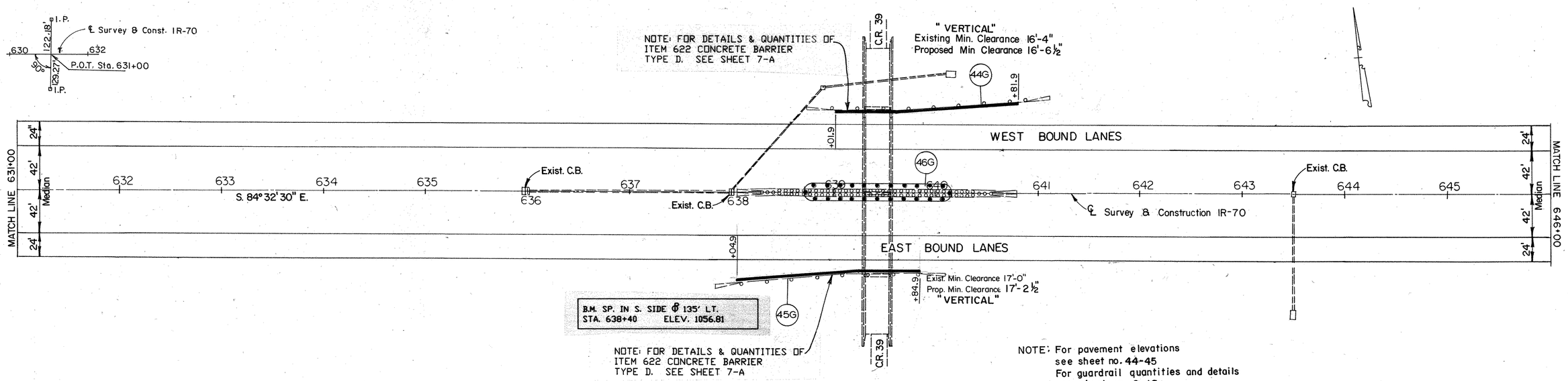
CALC. BY D.M.
DATE 2-29-88
CHECK. BY R.M.
DATE 3-4-88





B.M. SP. IN S.E. ROOT OF 24" MAPLE
150' LT. STA. 611+72 ELEV. 1078.27





NOTE: For pavement elevations
see sheet no. 44-45
For guardrail quantities and details
see sheet no. 9-10
For drainage details
see sheet no. 102

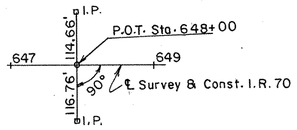
601+00 - 646+00

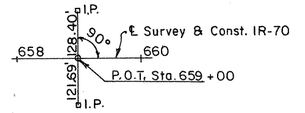
FHWA REGION	STATE	PROJECT	
5	OHIO		

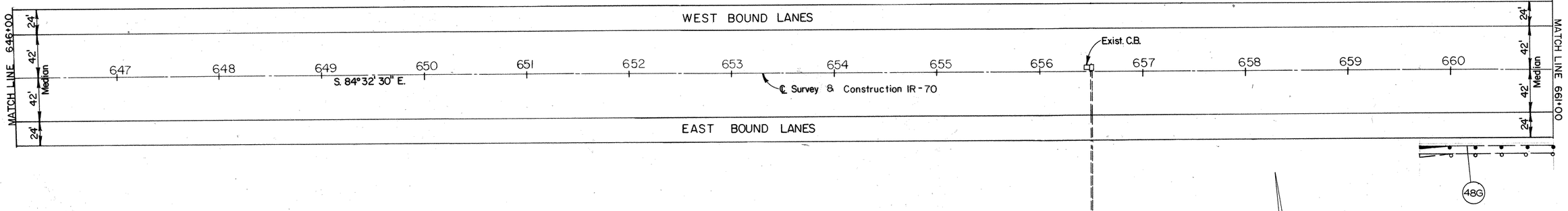
64
126

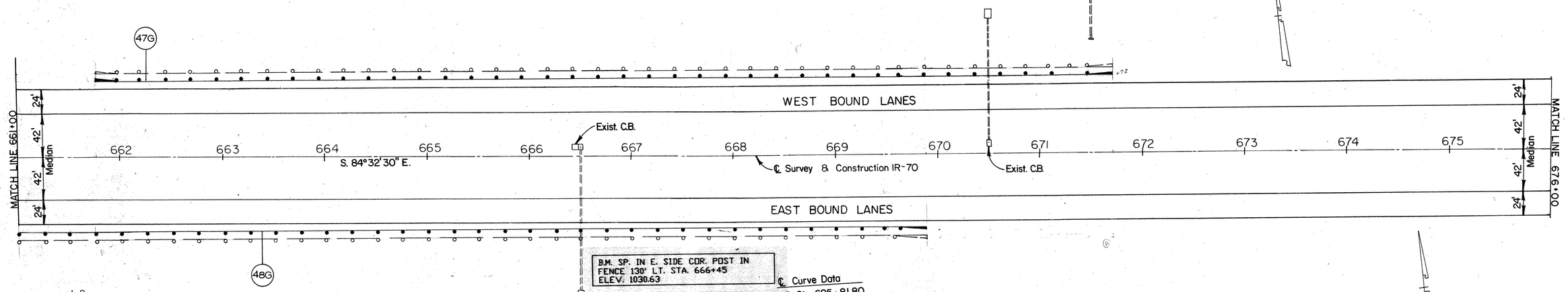
FAI - 70 - 0.00
LIC - 70 - 0.00

CALC. BY D.M.
DATE 2-29-88
CHECK. BY RJM
DATE 3-4-88



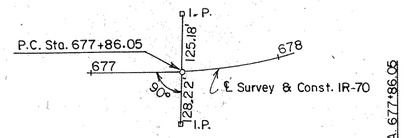


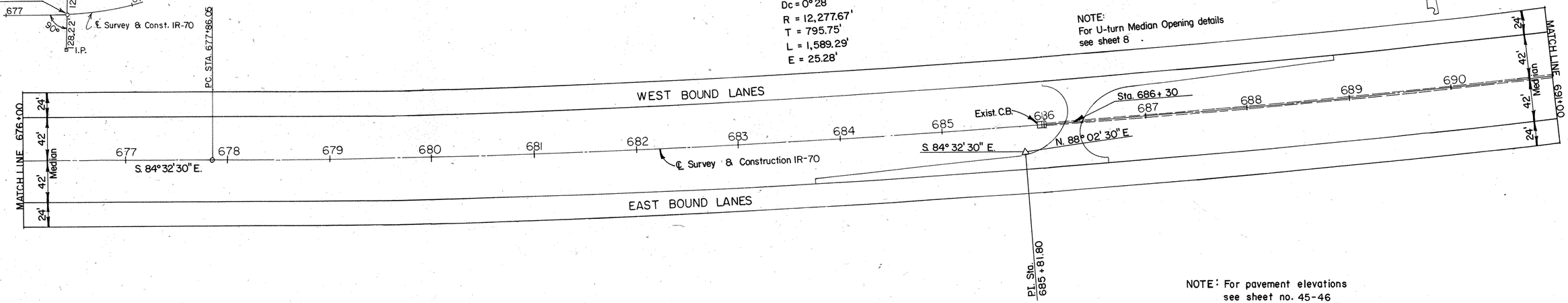




B.M. SP. IN E. SIDE COR. POST IN FENCE 130' LT. STA. 666+45 ELEV. 1030.63

℄ Curve Data
P.I. Sta. 685+81.80
△ = 7° 25' Lt.
Dc = 0° 28'
R = 12,277.67'
T = 795.75'
L = 1,589.29'
E = 25.28'





NOTE:
For U-turn Median Opening details see sheet 8 .

NOTE: For pavement elevations see sheet no. 45-46
For guardrail quantities and details see sheet no. 9-10
For drainage details see sheet no. 103

646+00 - 691+00

CALC. BY	D.W.
DATE	1-29-88
CHECK. BY	RM
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

65
126

FAI - 70 - 0.00
LIC - 70 - 0.00

℄ Curve Data
P.I. Sta. 705+09.14
△ = 13°-40' Rt.
D_c = 1°-00'
R = 5,729.58'
T = 686.59'
L = 1,366.67'
E = 40.99'

NOTE: For acceleration lane details see sheet no. 76-77

B.M. □ N.E. COR. OF WING FOR CUL. 105' RT. STA. 692+80 ELEV. 990.82

P.T. STA. 693+75.34

Begin Taper Sta. 696+00

P.I. Sta. 705+09.14

MATCH LINE 691+00

WEST BOUND LANES 24'

EAST BOUND LANES 24'

Median 42'

N-88°-02'-30"-E

S-78°-17'-30"-E

MATCH LINE 706+00

692 693 694 695 696 697 698 699 700 701 702 703 704 705

Exist. C.B.

℄ Survey & Construction IR-70

P.C. Sta. 698+22.55

Begin Median Taper

P.C. STA. 698+22.55

697 132.54 699 121.86 90°

Begin Taper Sta. 704+05.5

"VERTICAL"
Existing Min. Clearance 16'-4"
Proposed Min. Clearance 16'-6½"

P.O.T. Sta. 716+00

715 120.42 717 97.82 90°

NOTE: For details of N.W. Ramp see sheet 77.

Sta. 708+00.00 ℄ IR-70 = Sta. 708+00.0 NW. Ramp

129.21 38.33 90°

P.T. Sta. 693+75.31

℄ Survey and Const. N.W. Ramp

709 710 711 N.W. RAMP

End Median Taper

B.M. □ S.E. COR. OF HDWLL 120' LT. STA. 711+39 ELEV. 957.50

NOTE: FOR DETAILS & QUANTITIES OF ITEM 622 CONCRETE BARRIER TYPE D. SEE SHEET 7-A

+50.1 50G

P.C. STA. 720+99.45

MATCH LINE 706+00

WEST BOUND LANES 24'

EAST BOUND LANES 24'

22'

707 708 709 710 711 712 713 714 715 716 717 718 719 720

℄ Survey & Construction IR-70

S-78°-17'-30"-E

Exist. C.B.

+60.3 51G +40.3

MATCH LINE 721+00

NOTE: FOR DETAILS & QUANTITIES OF ITEM 622 CONCRETE BARRIER TYPE D. SEE SHEET 7-A

Begin Median Taper

Existing Min. Clearance 16'-3"
Proposed Min. Clearance 16'-5½"
"VERTICAL"

49G

709 710 711 712 S.W. RAMP

℄ Survey and Const. S.W. Ramp

NOTE: For deceleration lane details see sheet no. 76-77

Sta. 708+00.0 ℄ IR-70 = Sta. 708+00.0 S.W. Ramp

℄ Curve Data
P.I. Sta. 725+33.25
△ = 6°-30' Lt.
D_c = 0°-45'
R = 7,639.44'
T = 433.80'
L = 866.67'
E = 12.30'

P.T. Sta. 711+89.22

710 79.85 712 139.15 90°

P.T. STA. 711+89.22

NOTE: For details of S.W. Ramp see sheet 77

NOTE: For details of N.E. Ramp see sheet 78

Exist. Catch Basin, for details see sheet 104

N.E. RAMP 728 729 730 731 732

℄ Survey and Const. N.E. Ramp

P.T. STA. 729+66.12

NOTE: For deceleration lane details see sheet no. 78

Sta. 732+80.69 ℄ IR-70 = Sta. 732+80.69 N.E. Ramp

Equation 733+97.69 Back = 550'00 Ahead

S.R. 158

50G +30.1

MATCH LINE 721+00

WEST BOUND LANES 24'

EAST BOUND LANES 24'

25'

722 723 724 725 726 727 728 729 730 731 732 733 551

Exist. C.B.

℄ Survey & Construction IR-70

S-84°-47'-30"-E

S-78°-17'-30"-E

S-84°-47'-30"-E

MATCH LINE 552+00

P.I. Sta. 725+33.25

S.E. RAMP 727 728 729 730 731

℄ Survey and Const. S.E. Ramp

NOTE: For details S.E. Ramp see sheet 78

End Median Taper

NOTE: For acceleration lane details see sheet no. 78

Sta. 731+50 ℄ IR-70 = Sta. 731+50 S.E. Ramp

P.T. Sta. 729+66.12

728 90° 133 730 118.59

NOTE: For pavement elevations see sheet no. 46-47
For guardrail quantities and details see sheet no. 9-10
For drainage details see sheet no. 104

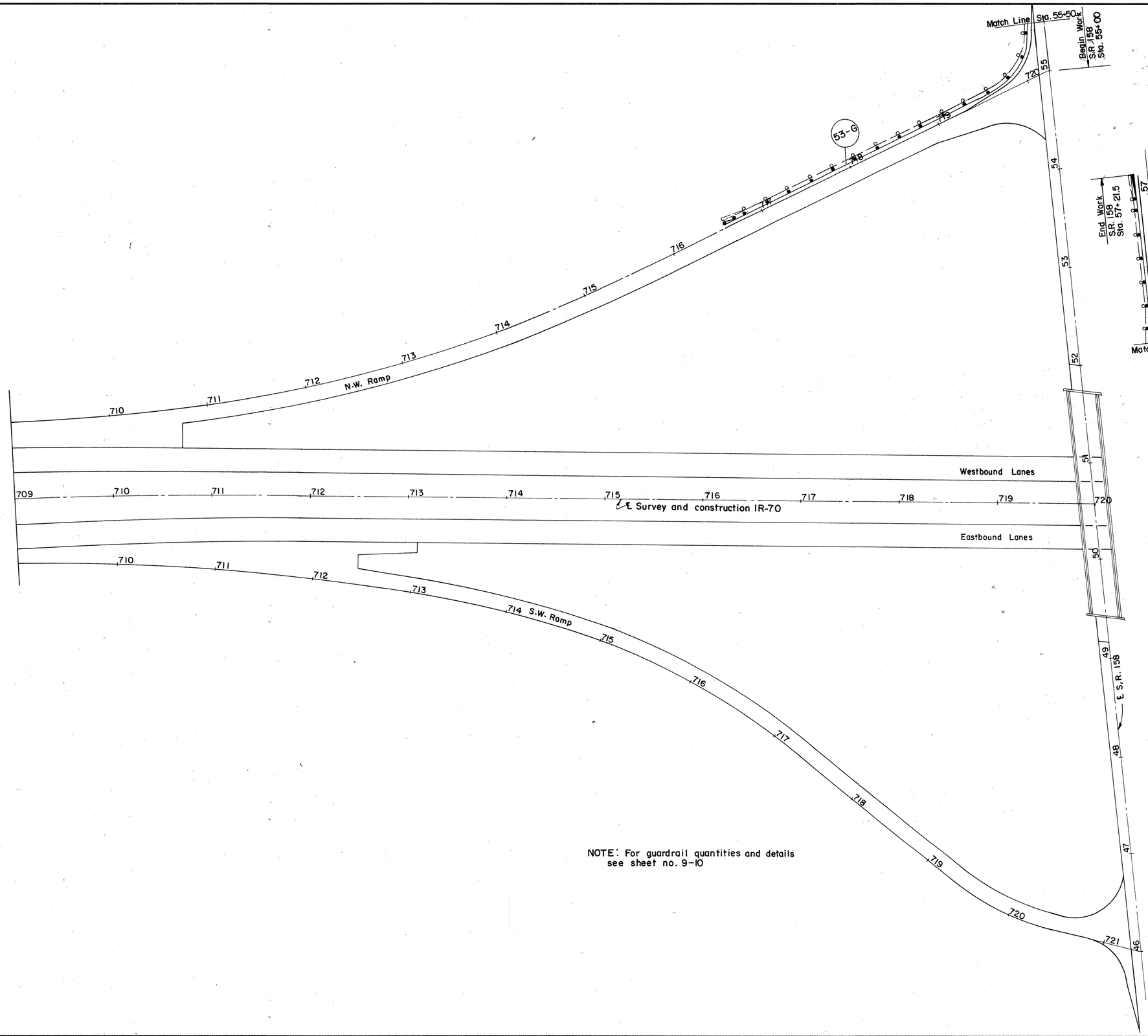
691+00 - 552+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

66
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D. [illegible]
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88



NOTE: For guardrail quantities and details see sheet no. 9-10

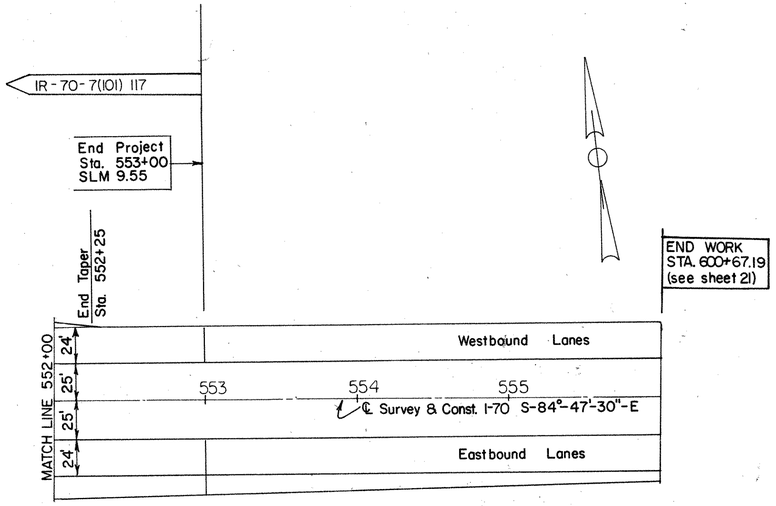
S.R. 158 INTERCHANGE (GUARDRAIL ONLY)

FHWA REGION	STATE	PROJECT	
5	OHIO		

67
126

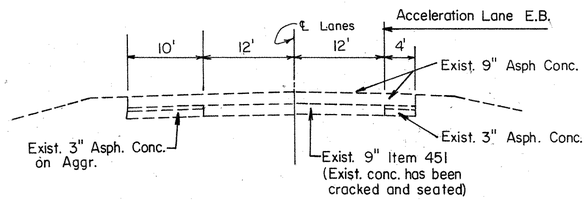
FAI - 70 - 0.00
LIC - 70 - 0.00

CALC. BY J. Lee
DATE 1-29-88
CHECK. BY RM
DATE 3-4-88



NOTE:
For drainage details
see sheet 105

For pavement elevations
see sheet no. 47



TYPICAL SECTION ADJOINING
PAVEMENT STA. 553+00

552+00 - 556+00

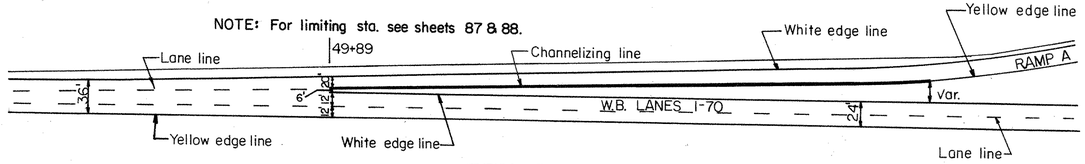
FHWA REGION	STATE	PROJECT	
5	OHIO		

68
126

FAI-70-0.00
LIC-70-0.00

CALC. BY
DATE 2-29-88
CHECK. BY RMT
DATE 3-4-88

NOTE: For limiting sta. see sheets 87 & 88.



TYPICAL ENTRANCE MARKINGS FROM S.R. 256 W.B.

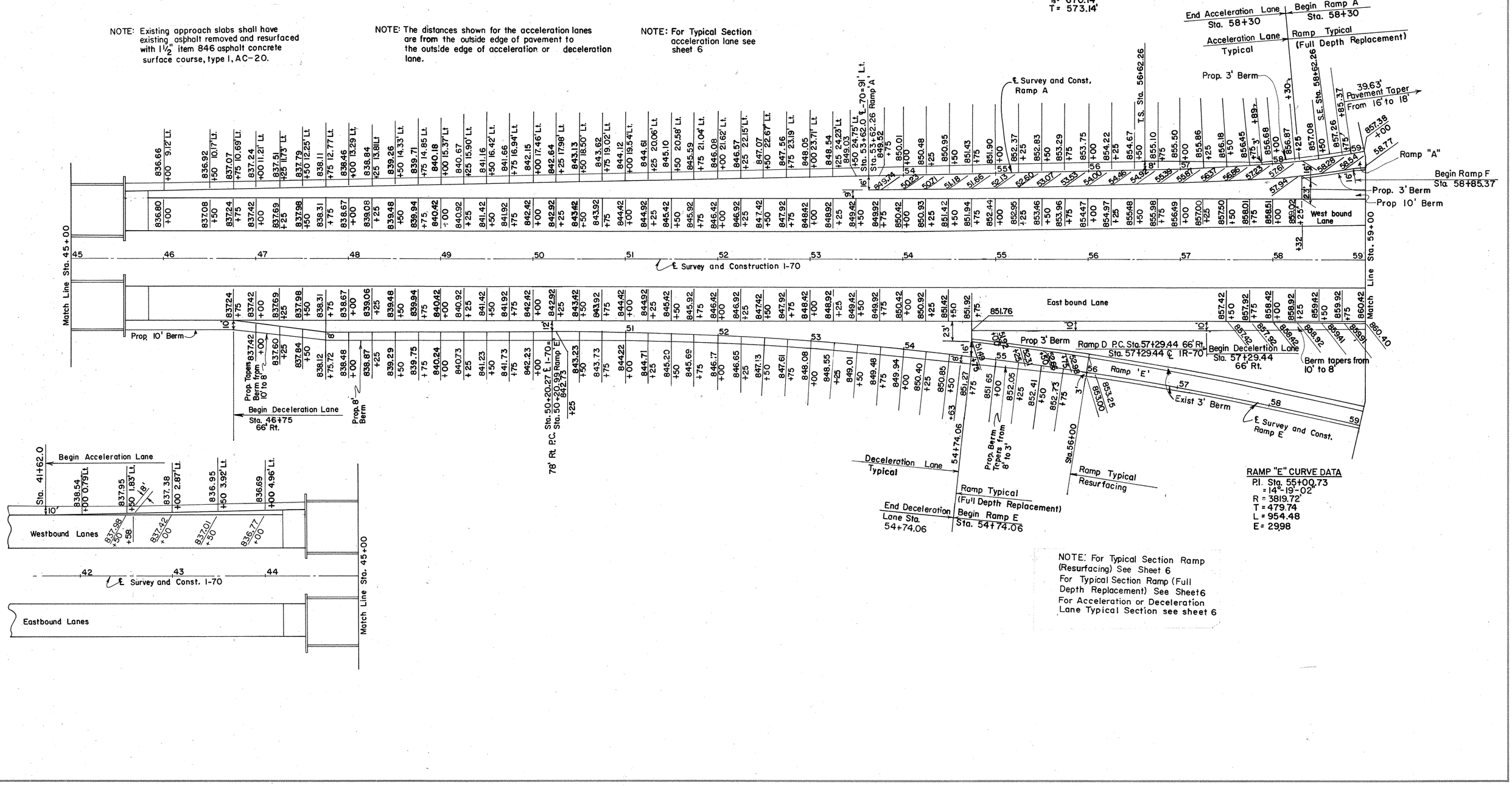
RAMP 'A' CURVE DATA
P.I. Sta. 63+32.40
Δ = 77° 06' 12" LT.
D_c = 8°-00'
R_c = 716.20'
L_s = 200.00'
Θ_s = 8°-00'
P = 2.33'
K = 99.93'
X_c = 199.61'
Y_c = 9.30
Δ_c = 69°-06'-12"
L_c = 863.79'
T_s = 670.14'
T = 573.14'

NOTE: For Typical Section Ramp (Full Depth Replacement) see sheet 6

NOTE: Existing approach slabs shall have existing asphalt removed and resurfaced with 1½" item 846 asphalt concrete surface course, type 1, AC-20.

NOTE: The distances shown for the acceleration lanes are from the outside edge of pavement to the outside edge of acceleration or deceleration lane.

NOTE: For Typical Section acceleration lane see sheet 6



RAMP "E" CURVE DATA
P.I. Sta. 55+00.73
= 14°-19'-02"
R = 3819.72'
T = 479.74
L = 954.48
E = 29.98

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6
For Typical Section Ramp (Full Depth Replacement) See Sheet 6
For Acceleration or Deceleration Lane Typical Section see sheet 6

S.R. 256 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

69
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D.M.
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

NOTE: The distances shown for the acceleration lanes are from the outside edge of pavement to the outside edge of acceleration or deceleration lane.

NOTE: Existing approach slabs shall have existing asphalt removed and resurfaced with 1½" item 846 asphalt concrete surface course, type I, AC-20.

Exist Pole Box
Exist Tower Light
Exist Pole Box
Circuit "A"
25' Appr. slab
Bridge Limits for details see sheet 106-118
25' Appr. slab
℄ Survey and Const. I-70
Circuit "B"
Exist Pole Box
Match Line Sta. 59+00
Match Line Sta. 72+00
Eastbound Lanes
Proposed Berm tapers from 10 to 8'
Proposed 8' Berm
Exist Overhead Sign
Proposed 3' Berm
Existing 3' Berm
Proposed 10' Berm
Exist. Pole Box
Proposed 8' Berm
Existing 3' Berm

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6
For Typical Section Ramp (Full Depth Replacement) See Sheet 6
For Acceleration or Deceleration Lane Typical Section see sheet 6

Ramp 'D' Curve Data
P.I.= Sta. 62 + 02.07
Δ = 4°43'25" Rt.
Dc = 0°30'
R = 11459.16'
T = 472.63'
L = 944.72'
E = 9.74'

Ramp 'D' Curve Data
La = 200'
D = 0°30'
D = 23°00'
Ba = 22°30'
Δ1 = 0°30'
Δ2 = 23°00'
Δ = 23°30'
Pa = 6.51'

Ramp 'D' Curve Data
Δ = 111°13'49" Rt.
Dc = 23°00'
R = 249.11'
L = 483.61'

Ramp 'D' Curve Data
Δ = 55°29'07" Rt.
Dc = 13°00'
R = 440.74'
L = 426.81'

Ramp 'D' Curve Data
Δ = 66°24'06" Rt.
Dc = 25°00'
R = 229.18'
L = 265.60'

C.S. Sta. 59+76.47
℄ Survey and Const. Ramp E
C.S. Sta. 61+25.47
S.C. Sta. 63+14.06
C.S. Sta. 66+74.16
Prop. Berm Tapers From 8' to 3'
Ramp Typical (Resurfacing) Sta. 68+00
S.C. Sta. 68+74.16
℄ Survey and Const. Ramp D
S.C. Sta. 71+71.77
℄ Survey and Const. Ramp C
T.S. Sta. 69+71.77
P.T. Sta. 68+31.01

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6

Ramp 'E' Curve Data
P.I.= Sta. 62 + 62.51'
Δ = 85°46' 25" Rt.
La = 150'
D1 = 1°30'
D2 = 25°00'
Ba = 17°37'30"
Pa = 3.83'
Δ1 = 1°07'30"
Δ2 = 18°45'00"
Δ = 19°52'30"
Ta = 287.04'
Xa = 148.34'
Ya = 18.17'

Ls = 150'
D = 25°00'
Bs = 18°45'
P = 4.07'
K = 74.73'
Xc = 148.40'
Yc = 16.24'
Δc = 47°08'55"
Lc = 188.59'
Ts = 291.83'

Ramp 'D' Curve Data
Ls = 150'
D = 25°00'
Bs = 18°45'
P = 4.07'
K = 74.73'
Xc = 148.40'
Yc = 16.24'

Ramp 'C' Curve Data
P.I.= Sta. 66 + 02.63
Δ = 61°25'52" Lt.
R = 477.74'
T = 283.84'
L = 512.22'
E = 77.96'

C.S. Sta. 80+50.18
S.T. 82+00.18
30' Feather as per Std. Drawing BP-5
Existing 3' Berm
End Work Ramp D Sta. 82+00.18
Deceleration Lane Typical
Ramp Typical (Full Depth Replacement)
End Deceleration Lane Sta. 66+74.16
Begin Ramp D Sta. 66+74.16
Existing Type 7 Curb
Existing Type 8 Curb
Existing 3' Berm
End Work Ramp E Sta. 64+64.06
Sta. 64+64.06
30' Feather as per Std. Drawing BP-5
Exist Pole Box
Existing Type 7 Curb
Existing 3' Berm
℄ S.R. 256
30' Feather as per Std. Drawing BP-5
Begin Work Ramp C Sta. 60+52.33
P.C. Sta. 63+18.79
P.C.C. Sta. 75+57.77
Ramp 'D'
Ramp 'C'

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6

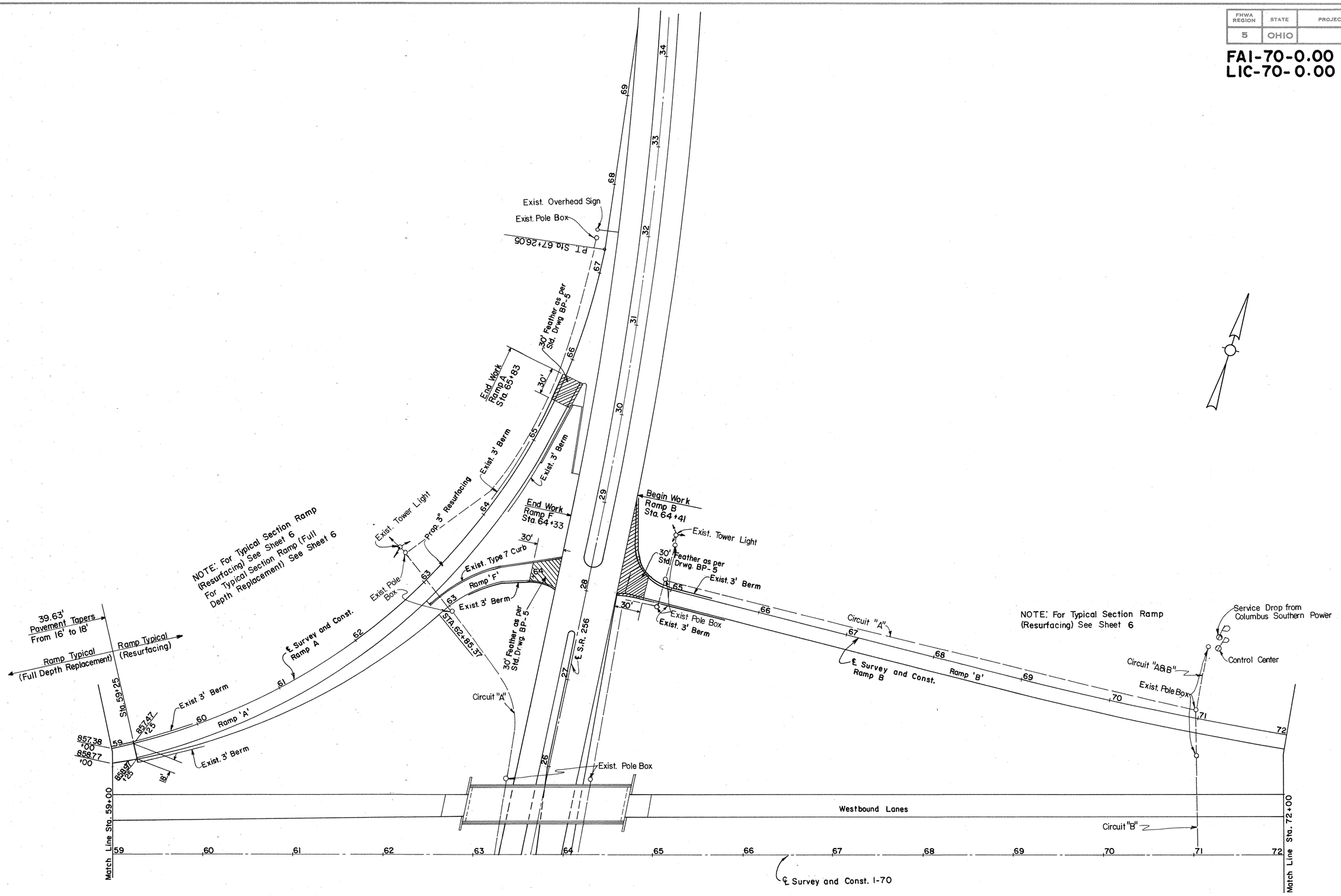
S.R. 256 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

70
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D.M
DATE 2-23-88
CHECK. BY RM
DATE 3-4-88



S.R. 256 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

71
126

FAI-70-0.00
LIC-70-0.00

CALC. BY
DATE 3-28-88
CHECK. BY
DATE 3-4-88

Ramp 'B' Curve Data
P.I. Sta. 73+72.35
Δ = 14° 23' 02" Lt.
Dc = 1° 30'
R = 3,819.72'
T = 482.00'
L = 958.93'
E = 30.29'

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6
For Typical Section Ramp (Full Depth Replacement) See Sheet 6
For Acceleration or Deceleration Lane Typical Section see sheet 6

End Ramp B Sta. 73+96.21
Begin Deceleration Lane Sta. 73+96.21
Deceleration Lane Typical
Ramp Typical (Resurfacing)
Ramp Typical (Full Depth Replacement)
Sta. 72+71.21
+96.21
Prop. Berm Tapers from 3' to 8'
Prop. 8' Berm
Exist. 3' Berm
Ramp 'B'
Prop. 10' Berm
Prop. 3' Berm
℄ Survey and Const. Ramp B
Sta. 78+50 ℄ I-70 = Sta. 78+49.28 Ramp 'B'
Prop. 8' Berm
Prop. Berm Tapers from 8' to 10'
End Deceleration Lane Sta. 81+95.27 66' Lt.
Prop. 10' Berm
Westbound Lanes
Match Line Sta. 72+00
Match Line Sta. 85+00
℄ Survey and Const. I-70
Eastbound Lanes
℄ Survey and Const. Ramp C
Ramp 'C'
Ramp Typical (Resurfacing)
Prop. 3' Berm Sta. 75+74.74
C.S. Sta. 75+25
Prop. Berm Tapers from 3' to 8'
S.T. Sta. 77+74.74
Prop. 8' Berm
Sta. 80+75.0 ℄ I-70 = Sta. 80+74.74 Ramp 'C'
91' Rt.

Ramp 'C' Curve Data
P.I. Sta. 73+93.40
Δ = 48° 14' 15" Rt.
Dc = 8° 00'
Ls = 200'
Rc = 716.20'
Os = 8° 00'
P = 2.33'
K = 99.93'
Xc = 199.61'
Yc = 9.30'
Δc = 32° 14' 15" Rt.
Lc = 402.97'
Ts = 42.163'
Es = 7.105'

Ramp Typical (Full Depth Replacement)
Acceleration Lane Typical
End Ramp
Begin Acceleration Lane
Sta. 76+05 ℄ Survey I-70

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6
For Typical Section Ramp (Full Depth Replacement) See Sheet 6
For Acceleration or Deceleration Lane Typical Section see sheet 6

NOTE: The distances shown for the acceleration lanes are from the outside edge of pavement to the outside edge of acceleration or deceleration lane.

Match Line Sta. 85+00
Match Line Sta. 95+00
℄ Survey and Const. I-70
Prop. 8' Berm
Sta. 91+79
Prop. Berm Tapers from 8' to 10'
End Acceleration Lane Sta. 92+75 66' Rt.
Prop. 10' Berm

S.R. 256 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

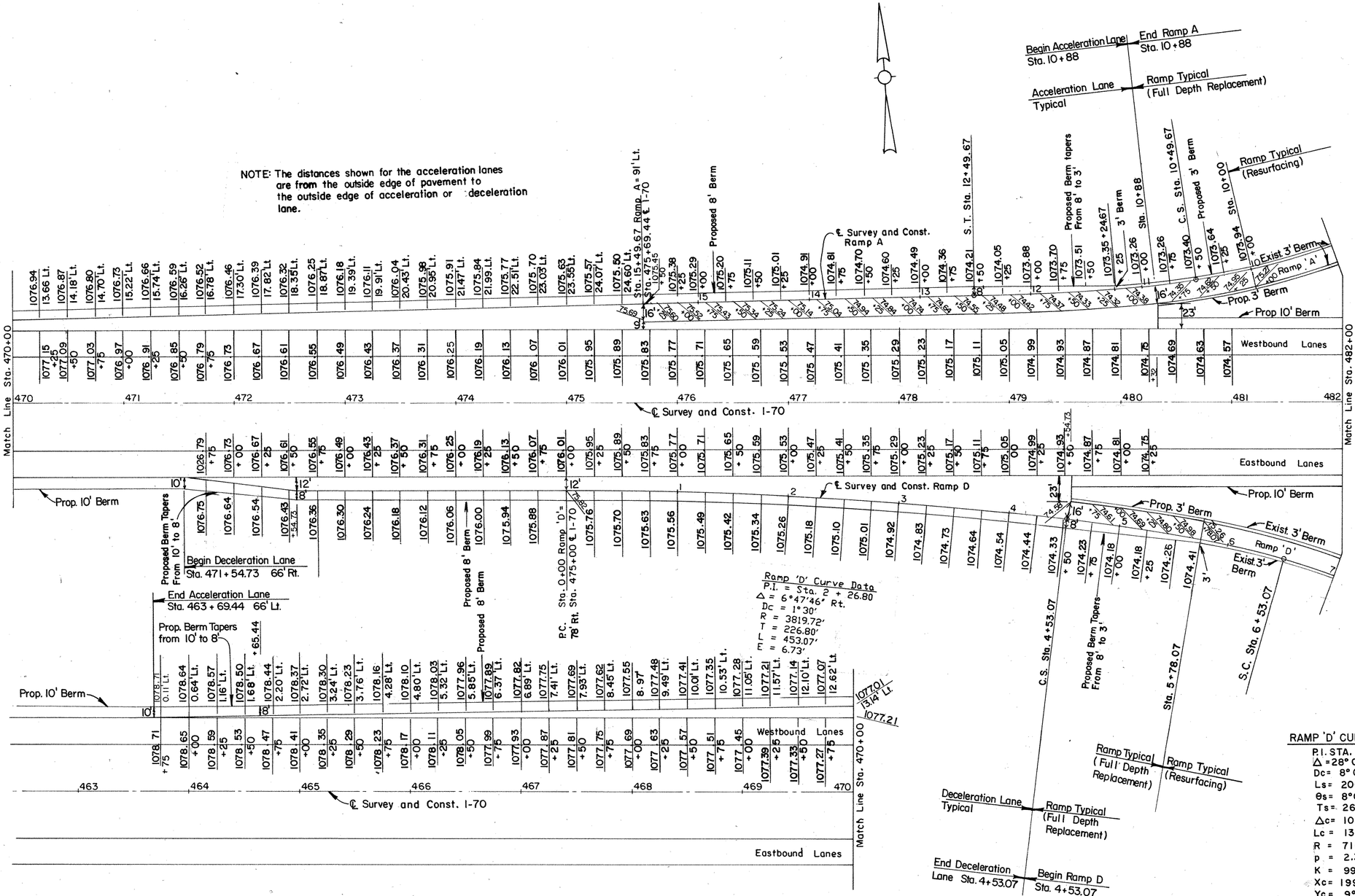
72
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D.M
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

Ramp 'A' Curve Data
P.I. Sta. 7+43.83
Δ = 91°58'23" Lt.
Dc = 8°00'
Rc = 716.20'
Ls = 200.00'
θs = 8°00'
P = 2.33'
K = 99.93'
Xc = 199.61'
Yc = 9.30'
Δc = 83°58'23"
Lc = 1,049.67'
Ts = 841.32'
T = 743.63'

NOTE: The distances shown for the acceleration lanes are from the outside edge of pavement to the outside edge of acceleration or deceleration lane.



Ramp 'D' Curve Data
P.I. = Sta. 2 + 26.80
Δ = 6°47'46" Rt.
Dc = 1°30'
R = 3819.72'
T = 226.80'
L = 453.07'
F = 6.73'

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6
For Typical Section Ramp (Full Depth Replacement) See Sheet 6
For Acceleration or Deceleration Lane Typical Section see sheet 6

RAMP 'D' CURVE DATA
P.I. STA. 7+13.25
Δ = 28° 08' 36" RT.
Dc = 8° 00'
Ls = 200'
θs = 8°00'
Ts = 260.18' BK. 281.37' FWD.
Δc = 10°38'56"
Lc = 133.11'
R = 716.20'
p = 2.33'
K = 99.93'
Xc = 199.61'
Yc = 9°30"

TRANSITION-STA. 4+53.07 TO STA. 6+53.07
La = 200'
θa = 6°30'
Pa = 1.89'
Xa = 199.40'
Ya = 12.77'
Δ1 = 1°30'
Δ2 = 8°00'

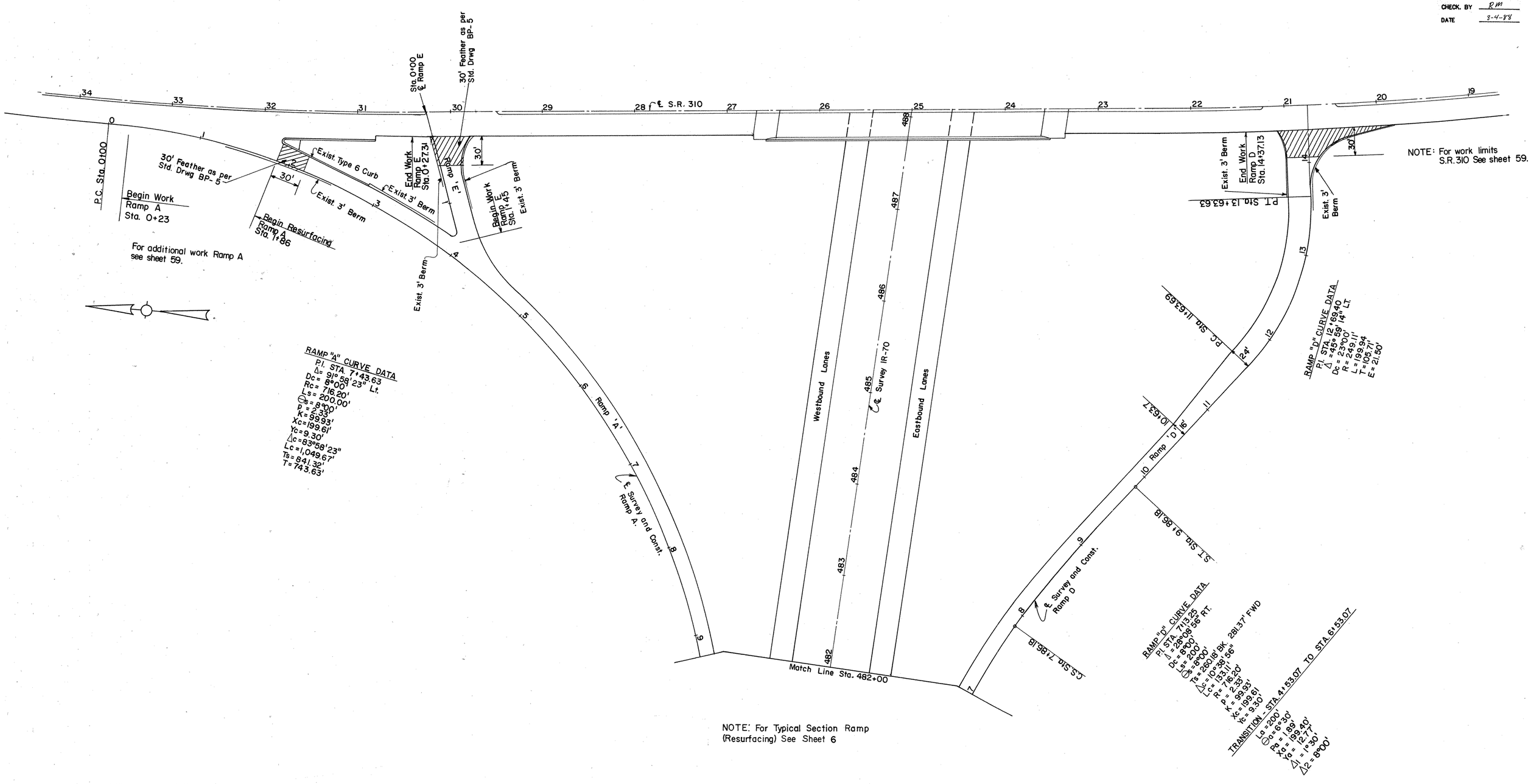
S.R. 310 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

73
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D.M
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88



RAMP "A" CURVE DATA
P.I. STA. 7+43.63
Δ = 91°58'23" Lt.
Dc = 8°00'
Rc = 716.20'
Ls = 200.00'
Θs = 8°00'
P = 2.33'
K = 99.93'
Xc = 199.61'
Yc = 9.30'
Δc = 83°58'23"
Lc = 1,049.67'
Ts = 841.32'
T = 743.63'

RAMP "D" CURVE DATA
P.I. STA. 12+69.40
Δ = 45°59'14" Lt.
Dc = 23°00'
R = 249.11'
L = 199.94
T = 105.71'
E = 21.50'

RAMP "D" CURVE DATA
P.I. STA. 7+13.25
Δ = 28°08'56" RT.
Dc = 8°00'
Ls = 200'
Θs = 8°00'
Ts = 260.16' BK 281.37' FWD
Δc = 10°38'56"
Lc = 133.11'
R = 716.20'
P = 2.33'
K = 99.93'
Xc = 199.61
Yc = 9.30'

TRANSITION - STA. 4+53.07 TO STA. 6+53.07
Lo = 200'
Θa = 6°30'
Pa = 1.89'
Xa = 199.40'
Ya = 12.17'
Δ1 = 1°30'
Δ2 = 8°00'

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6

S.R. 310 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

74
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D.M
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6

RAMP " B " CURVE DATA
P.I. Sta. 7+64.97
Δ 35° 43' 35" RT.
Dc= 8°00'
Ls= 200'
θs= 8°00'
Ts= 311.90' BK. 332.56' FWD
Δc= 18°13'35"
Lc= 227.83'
R = 716.20'
p = 2.33'
K = 99.93'
Xc= 199.61'
Yc= 9.30'

TRANSITION - Sta. 4+53.07 to Sta. 6+53.07
La= 200'
θa= 6°30'
pa= 1.89'
Xa = 199.40'
Δ1 = 1°30'
Δ2= 8°00'
Ya = 12.77'

℄ CURVE DATA
P.I. STA. 6+23.55
Δ= 29°17'59" RT.
Dc = 8°00'
Rc = 716.20'
Ls= 200.00'
θs= 8°00'
p = 2.33'
K = 99.93'
Xc = 199.61'
Yc = 9.30'
Δc = 13°17'59"
Lc = 166.25'
Ts = 287.76'
Es = 26.47'

RAMP "B" CURVE DATA
P.I. Sta. 12+86.45
Δ = 31° 07' 21" LT.
Dc = 23° 00'
R = 249.11'
L = 135.31'
T = 69.37'
E = 9.48'

Match Line Sta. 494+00
C.S. Sta. 8+80.90
S.T. Sta. 10+80.90
℄ Survey and Const. Ramp B
Ramp 'B'
P.C. Sta. 12+17.08
P.T. Sta. 13+52.39
S.C. Sta. 5+35.77
T.S. Sta. 3+35.77
℄ Survey and Const. Ramp C
Ramp 'C'
Westbound Lanes
Eastbound Lanes
℄ Survey IR 70
℄ S.R. 310
30' Feather as per Std. drawing BP-5
Existing 3' Berm
End Work Ramp B Sta. 14+49.33
Begin Work Ramp C Sta. 0+28.10

NOTE: For work limits S.R. 310 see sheet 60

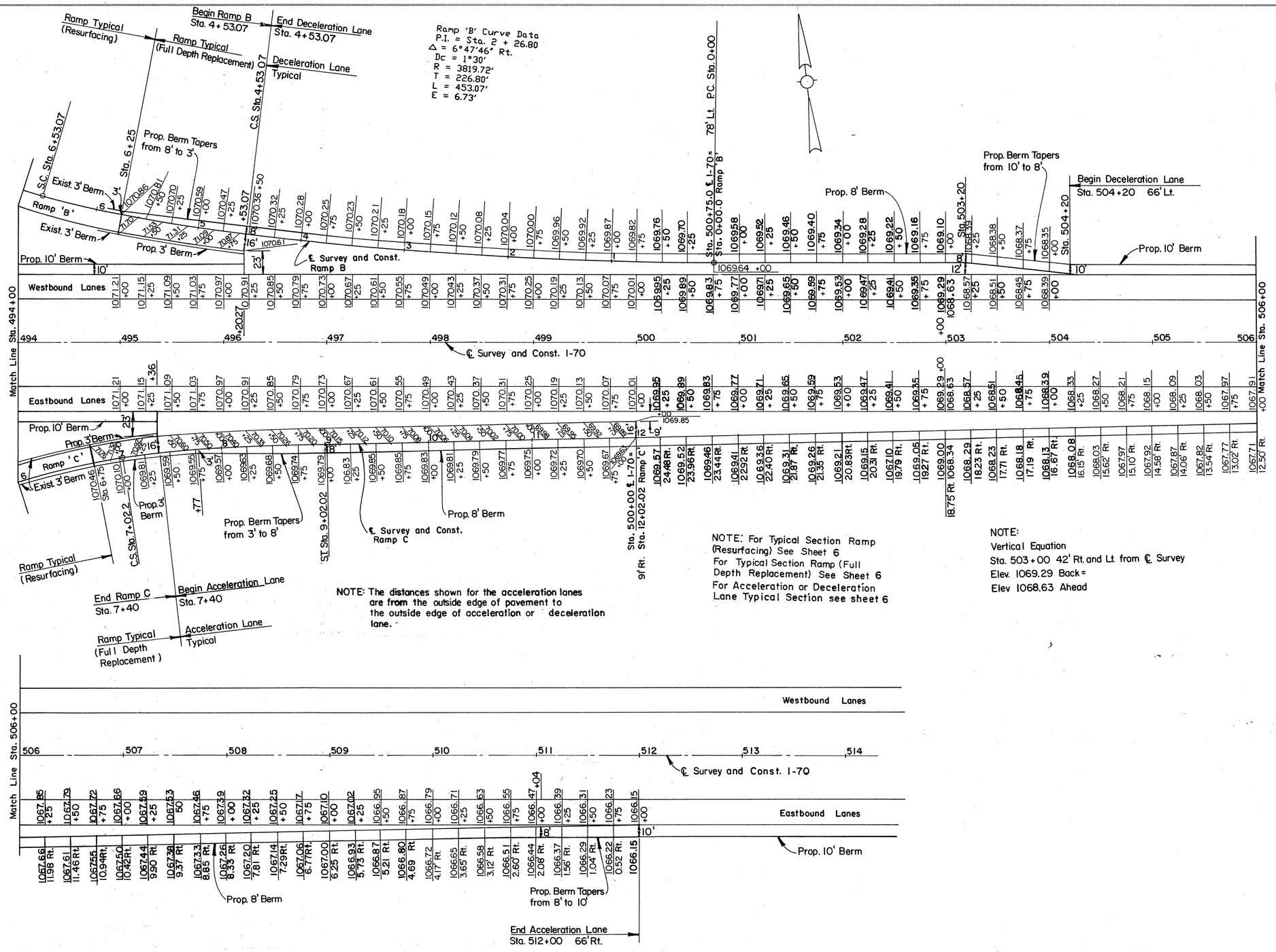
S.R. 310 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

75
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D. Jen
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88



NOTE: The distances shown for the acceleration lanes are from the outside edge of pavement to the outside edge of acceleration or deceleration lane.

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6
For Typical Section Ramp (Full Depth Replacement) See Sheet 6
For Acceleration or Deceleration Lane Typical Section see sheet 6

NOTE:
Vertical Equation
Sta. 503+00 42' Rt. and Lt. from ℄ Survey
Elev. 1069.29 Back =
Elev 1068.63 Ahead

S.R. 310 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

76
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D. Su
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

NOTE: The distances shown for the acceleration lanes are from the outside edge of pavement to the outside edge of acceleration or de.celeration lane.

For Acceleration or Deceleration Lane Typical Section see sheet 6

Begin Acceleration Lane
Sta. 696+00 66' Lt.

Prop. Berm Tapers from 10' to 8'

Prop. 8' Berm

Prop. 10' Berm

Westbound Lanes

Eastbound Lanes

℄ Survey and Const. I-70

Sta. 708+00.00 NW. Ramp = 76.7' Lt.
Sta. 708+00.00 ℄ Survey IR-70

T.S. Sta. 708+47.12

Prop. 8' Berm

Match Line Sta. 709+00

Prop. 10' Berm

Prop. Berm Tapers from 10' to 8'

Prop. 8' Berm

Begin Deceleration Lane
Sta. 704+05.5 57.63' Rt.

P.C. Sta. 708+00 SW. Ramp = 63.70' Rt.
Sta. 708+00 ℄ Survey IR-70

S.R. 158 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

77
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D. Yee
DATE 1-29-88
CHECK. BY RM
DATE 2-4-88

N.W. Ramp Curve Data
P.I. = 712 + 58.46
Δ = 22°35' Lt.
Δc = 12°35' Lt.
Dc = 4°00'
Ls = 250'
Ts = 411.34'
Es = 30.16'
Es = 249.81'
Xc = 7.27'
Yc = 314.58'
Lc = 1432.40'
Rc = 1432.40'
Bs = 5°00'

End Acceleration Lane
Sta. 710 + 62

Begin N.W. Ramp
Sta. 710 + 62

Acceleration Lane
Typical

Begin N.W. Ramp
(Full Depth Replacement)

Prop. 8' Berm

Prop. Berm Tapers
from 8' to 3'

Prop. 3' Berm

Ramp Typical
Sta. 711+50
(Resurfacing)

Exist. 3' Berm

N.W. Ramp

Prop. 3' Berm

Prop. 10' Berm

C.S. Sta. 710+97.17

C.S. Sta. 714+11.70

℄ Survey and Const.
N.W. Ramp

S.T. Sta. 716+91.70

30' Taper as per
Std. Drwg. BP-5

Exist. 3' Berm

End Work
N.W. Ramp
Sta. 720+13.73

NOTE: For work limits
S.R. 158 see
sheet 66.

Westbound Lanes

℄ Survey and Construction I-70

Eastbound Lanes

Prop. 8' Berm

Prop. 3' Berm

Prop. 10' Berm

Exist. 3' Berm

714 S.W. Ramp

Exist. 3' Berm

Prop. Berm Taper
from 8' to 3'

Deceleration Lane
Typical

Ramp Typical
(Full Depth Replacement)
Sta. 712+03.3

Ramp Typical
(Resurfacing)

End Deceleration Lane
Sta. 712+03.3

Begin SW. Ramp
Sta. 712+03.3

C.S. Sta. 712+58

℄ Survey and Const.
S.W. Ramp

S.C. Sta. 715+08

P.T. Sta. 717+33

P.C. Sta. 719+35.10

P.T. Sta. 720+44.66

End Work
S.W. Ramp
Sta. 721+29

Exist. 3' Berm

Exist. 3' Berm

30' Feather as per
Std. Drwg. BP-5

℄ S.R. 158

NOTE: For Typical Section Ramp
(Resurfacing) See Sheet 6
For Typical Section Ramp (Full
Depth Replacement) See Sheet 6
For Acceleration or Deceleration
Lane Typical Section see sheet 6

NOTE: The distances shown for the acceleration lanes are from the outside edge of pavement to the outside edge of acceleration or deceleration lane.

S.W. Ramp Curve Data
P.I. = Sta. 710 + 29.77
Δ = 11°27' Rt.
D = 2°30'
R = 2291.85'
T = 229.77'
L = 458.00'
E = 11.49'

S.W. Ramp Curve Data
P.I. = Sta. 714 + 05.43
Δ1 Δe = 13°07.5' Rt.
Δ1 = 3°07.5'
Δ2 = 10°00'
T1 = 147.43'
Te = 103.69'
Lc = 250'

S.W. Ramp Curve Data
P.I. = Sta. 719 + 90.78
Δ = 23°12' Lt.
D = 23°00'
R = 249.11'
T = 35.68'
L = 109.36'
E = 6.15'

S.R. 158 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

78
126

FAI-70-0.00
LIC-70-0.00

CALC. BY D. M.
DATE 2-25-88
CHECK. BY DM
DATE 3-4-88

N.E. Ramp Curve Data
P.I. = 724 + 34.90
Δ = 22°00' Lt.
D = 8°00'
R = 716.20'
T = 139.21'
L = 275.00'
E = 13.40'

N.E. Ramp Curve Data
P.I. = 720 + 6.29
Δ = 20°45' Rt.
D = 23°00'
R = 249.11'
T = 45.61'
L = 90.23'
E = 4.14'

S.E. Ramp Curve Data
P.I. = 721 + 01.32
Δ = 9°09' Lt.
D = 8°00'
R = 716.20'
T = 57.31'
L = 114.37'
E = 2.29'

S.E. Ramp Curve Data
P.I. = Sta. 726 + 21.43
Δ = 28°00' Rt.
D = 6°00'
R = 954.93'
T = 238.10'
L = 466.67'
E = 29.23'

NOTE: For Typical Section Ramp (Resurfacing) See Sheet 6
For Typical Section Ramp (Full Depth Replacement) See Sheet 6
For Acceleration or Deceleration Lane Typical Section see sheet 6

NOTE: The distances shown for the acceleration lanes are from the outside edge of pavement to the outside edge of acceleration or deceleration lane.

S.R. 158 INTERCHANGE

PAVEMENT DATA TABLE

CALC. BY D.M. DATE 2-29-88 CHKD. BY RM DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

FHWA REGION	STATE	PROJECT	
5	OHIO		

79
126

* CITY, STATE, & FEDERAL

PAVEMENT DATA

STATION TO STATION ℄ SURVEY I-70	W.P. FEET	LENGTH LIN. FEET	PAVEMENT AREA SQ. YD.			846 ASPH.CONC SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4 CU.YD.	407 TACK COAT AS PER PLAN GAL'S	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	202 Pavement Removed (Including Asphalt Surface) SQ.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	202 WEARING COURSE REMOVED SQ.YD	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
EASTBOUND															
0+00 – 36+00 *	36	3,600.0	14,400.0			500.0	700.0		1,600.0	4,600.0	14,400.0	3,800.0	14,400.0		57600
36+00 – 44+18	36	818.0	3,272.0			113.6	159.1		363.6	1,045.2	3,272.0	863.4	3,272.0		1308.8
44+18 – 44+43	36	25.0	100.0			1.5" 4.2		10						100.0	
44+43 – 45+57	BRIDGE LIMITS FOR DETAILS SEE SHEET						106-118								
45+57 – 45+82	36	25.0	100.0			1.5" 4.2		10						100.0	
45+82 – 62+57.7	36	1,675.7	6,702.8			232.7	325.8		744.8	2,141.2	6,702.8	1,768.8	6,702.8		2681.1
62+57.7 – 62+82.7	36	25.0	100.0			1.5" 4.2		10						100.0	
62+82.7 – 64+65.8	BRIDGE LIMITS FOR DETAILS SEE SHEET						106-118								
64+65.8 – 64+90.8	36	25.0	100.0			1.5" 4.2		10						100.0	
64+90.8 – 66+75	36	184.2	736.8			25.6	35.8		81.9	235.4	736.8	194.4	736.8		294.7
66+75 – 78+75	30 AVE.	1,200.0	4,000.0			138.9	194.4		444.4	1,277.8	4,000.0	1,055.6	4,000.0		1600.0
78+75 – 143+21.06 BACK	24	6,446.06	17,189.5			596.9	835.6		1909.9	5,491.1	17,189.5	4,536.1	17,189.5		6875.8
250+00 AHEAD – 258+50	24	850.0	2,266.7			78.7	110.2		251.9	724.1	2,266.7	598.2	2,266.7		906.7
46+75 – 47+75.72	6 AVE.	100.72	67.1			2.3	3.3		7.5	21.4	67.1	17.7	67.1		26.8
47+75.72 – 50+20.27	12	244.55	326.1			11.3	15.9		36.2	104.2	326.1	86.1	326.1		130.4
RAMP E															
50+20.99 – 54+74.06	25.5 AVE.	453.07	1,283.7			44.6	62.4		142.6	410.1	1,283.7	338.8	1,283.7		513.5
54+74.06 – 55+74.06	17 AVE.	100.0	188.9								188.9				
55+74.06 – 56+00	16	25.94	46.1								46.1				
54+74.06 – 56+00	16	125.94	223.9			7.8	10.9		24.9	71.5		59.1	223.9		89.6
56+00 – 62+64.06	16	664.06	1180.6			41.0	57.4	118.0							
62+64.06 – 63+64.06	15 AVE.	100.0	166.7			5.8	8.1	16.7							
63+64.06 – 64+34.06	15 AVE.	70.0	116.7			4.1	5.7	11.7							
64+34.06 – 64+64.06	14	30.0	46.7			0.8 AVE.	1.1 AVE.	4.7							
EASTBOUND															
57+29.44 –62+57.7	6.5 AVE.	528.26	381.5			13.2	18.5		42.4	121.9	381.5	100.7	381.5		152.6
62+57.7 – 62+82.7	13.5 AVE.	25	37.5			1.5" 1.6		4						37.5	
62+82.7 – 64+65.8	BRIDGE DETAILS FOR DETAILS SEE SHEET						106-118								
64+65.8 – 64+90.8	24.5 AVE.	25	68.1			1.5" 2.8		7						68.1	
RAMP D															
64+90.8 – 66+74.16	32 AVE.	183.36	651.9			22.6	31.7		72.4	208.2	651.9	172.0	651.9		260.8
66+74.16 – 67+74.16	17 AVE.	100.0	188.9								188.9				
67+74.16 – 68+00	16	25.84	45.9								45.9				
66+74.16 – 68+00	16	125.84	223.7			7.81	10.9		24.9	71.5		59.0	223.7		89.5
68+00 – 80+00.18	16	1200.18	2,133.6			74.1	103.7	213.4							
80+00.18 – 81+00.18	15 AVE.	100.0	166.7			5.8	8.1	16.7							
81+00.18 – 81+70.18	15 AVE.	70.0	116.7			4.1	5.7	11.7							
81+70.18 – 82+00.18	14	30.0	46.7			0.8 AVE.	1.1 AVE.	4.7							
RAMP C															
60+52.33 – 60+82.33	VAR	30.0	189			6.6	9.2	18.9							
60+82.33 – 61+10.06	27.73	30 AVE.	92.4			3.2	4.5	9.2							
61+10.06 – 61+50.06	40.0	18 AVE.	80.0			2.8	3.9	8.0							
61+50.06 – 75+25	1374.94	16	2444.3			84.9	118.8	244.4							
75+25 – 76+74.74	16	149.74	266.2								266.2	70.2			
76+74.74 – 77+74.74	18 AVE.	100.0	200.0								200.0	52.7			
77+74.74 – 80+74.74	16 AVE.	300.0	533.3								533.3	140.7			
76+05 – 76+75 (I-70)	22 AVE.	70.0	171.1									99.8			
76+75 – 80+75 (I-70)	18.5 AVE.	400.0	822.2									479.6			
75+25 – 76+05	16	80.0	142.2			4.9	6.9		15.8	45.4			142.2		56.9
76+05 – 80+74.74	32 AVE.	469.74	1670.2			58.0	81.2		185.6	533.5			1670.2		668.1
80+75 – 92+75	12.5	1200.0	1666.7			57.9	81.0		185.2	532.4	1666.7	439.8	1666.7		666.7
CITY, STATE & FED. SUB TOTALS						500	700.0		1600.0	4600.0	14,400.0	3800.0	14,400.0		57600
STATE & FED. SUBTOTAL (CARRIED TO SHEET 86)						1672	2310.8	729.1	4534.0	13,034.9	40,014.1	11,132.7	40,805.0	505.6	16322

* CITY, STATE, & FEDERAL

PAVEMENT DATA

STATION TO STATION ℄ SURVEY I-70	W.P. FEET	LENGTH LIN. FEET	PAVEMENT AREA SQ. YD.			846 ASPH.CONC SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4 CU.YD.	407 TACK COAT AS PER PLAN GAL'S	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	202 Pavement Removed (Including Asphalt Surface) SQ.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	202 WEARING COURSE REMOVED SQ.YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
WESTBOUND															
0+00 – 36+00 *	36	3600.0	14,400.0			500.0	700.0		1600.0	4600.0	14,400.0	3800.0	14,400.0		57600
36+00 – 44+18	36	818.0	3,272.0			113.6	159.1		363.6	1045.2	3,272.0	863.4	3,272.0		1308.8
44+18 – 44+43	36	25	100.0			1.5" 4.2		10						100.0	
44+43 – 45+57	BRIDGE LIMITS FOR DETAILS SEE SHEET						106-118								
45+57 – 45+82	36	25	100.0			1.5" 4.2		10						100.0	
45+82 – 54+00	36	818.0	3,272.0			113.6	159.1		363.6	1045.2	3,272.0	863.4	3,272.0		1308.8
54+00 – 62+40	30 AVE.	840.0	2,800.0			97.2	136.1		311.1	894.4	2,800.0	738.9	2,800.0		1120.0
62+40 –62+56.11	24	16.11	43.0			1.5	2.1		4.8	13.7	43.0	11.3	43.0		17.2
62+56.11 – 62+81.11	24	25	66.7			1.5" 2.8		7						66.7	
62+81.11 – 64+60.21	BRIDGE LIMITS FOR DETAILS SEE SHEET						106-118								
64+60.21 – 64+85.21	24	25	66.7			1.5" 2.8		7						66.7	
64+85.21–143+21.06BACK	24	7835.85	20,895.6			725.5	1015.8		2321.7	6675.0	20,895.6	5514.1	20,895.6		8358.2
250+00 AHEAD – 258+50	24	850.0	2266.7			78.7	110.2		251.9	724.1	2266.7	598.2	2266.7		906.7
41+62 – 44+18	2.7 AVE.	256.0	76.8			2.7	3.7		8.5	24.5	76.8	20.3	76.8		30.7
44+18 – 44+43	5.6 AVE.	25	15.6			1.5" 0.6		2						15.6	
44+43 – 45+57	BRIDGE LIMITS FOR DETAILS SEE SHEET						106-118								
45+57 – 45+82	8.5 AVE.	25	23.6			1.5" 1.0		3						23.6	
45+82 – 53+62	16.9 AVE.	780.0	1,464.7			50.9	71.2		162.7	467.9	1,464.7	386.5	1,464.7		585.9
53+62 – 58+32	15 AVE.	470.0	783.3									456.9			
RAMP A															
53+62.26 – 56+62.26	16 AVE.	300.0	533.3								533.3	140.7			
56+62.26 – 57+62.26	18 AVE.	100.0	200.0								200.0	52.8			
57+62.26 – 58+85.37	16	123.11	218.9								218.9	57.8			
58+85.37 – 59+25	17 AVE.	39.63	74.9			2.6	3.6		8.3	23.9	74.9	19.8	74.9		30.0
53+62.26 – 58+30	32 AVE.	467.74	1,663.1			57.7	80.8		184.8	531.3			1,663.1		665.2
58+30 – 58+85.37	16	55.37	98.4			3.4	4.8		10.9	31.4			98.4		39.4
59+25 – 64+82.69	16	557.69	991.4			34.4	48.2	99.1							
64+82.69 – 65+53	17 AVE.	70.31	132.8			4.6	6.5	13.3							
65+53 – 65+83	18	30.0	60.0			2.1	2.9	6.0							
RAMP F															
59+25 – 62+85.37	10 AVE.	360.37	400.4			13.9	19.5	40.0							
62+85.37 – 64+03	16	117.63	209.1			7.3	10.2	20.9							
64+03 – 64+33	VAR.	30	86			1.5	2.1	8.6							
RAMP B															
64+41 – 64+71	VAR.	30	202			3.5	4.9	20.2							
64+71 – 64+95.92	20 AVE.	24.92	55.4			1.9	2.7	5.5							
64+95.92 – 72+71.21	16	775.29	1378.3			47.9	67.0	137.8							
72+71.21 – 72+96.21	16	25.0	44.4								44.4				
72+96.21 – 73+96.21	17 AVE.	100.0	188.9								188.9				
72+71.21 – 73+96.21	16	125.0	222.2			7.7	10.8		24.7	71.0		58.6	222.2		88.9
73+96.21 – 78+49.28	25.5 AVE.	453.07	1283.7			44.6	62.4		142.6	410.1	1283.7	338.8	1283.7		513.5
78+50 – 80+94.55	12	244.55	326.1			11.3	15.9		36.2	104.2	326.1	86.1	326.1		130.4
80+94.55 – 81+95.27	6 AVE.	110.72	73.8			2.6	3.6		8.2	23.6	73.8	19.5	73.8		29.5
U-TURN MED. OPENINGS															
Sta. 4+00			368.9			12.8	17.9			6" 61.5		118	368.9		147.6
Sta. 109+50			510.2			17.7	24.8			6" 85.0		163	510.2		204.1
CITY, STATE & FED. SUB TOTALS						500.0	700.0		1600.0	4600.0	14,400.0	3800.0	14,400.0		57600
STATE & FED. SUBTOTAL (CARRIED TO SHEET 86)						1476.8	2045.9	390.4	4203.6	12,232.0	37,034.8	10,508.1	38,712.1	372.6	154849

PAVEMENT DATA TABLE

CALC. BY Q. M DATE 2-29-88 CHK'D. BY R.M DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

FHWA REGION	STATE	PROJECT	
5	OHIO		

80/126

PAVEMENT DATA

STATION TO STATION ℄ SURVEY	W.P. FEET	LENGTH LIN. FEET	PAVEMENT AREA SQ. YD.			846 ASPH.CONC SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4 CU.YD.	407 TACK COAT AS PER PLAN GALLONS	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	202 Pavement Removed (Including Asphalt Surface) SQ.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	202 WEARING COURSE REMOVED SQ. YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
EASTBOUND															
258+50 – 270+89.07	24	1,239.07	3,304.2			114.7	160.6		367.1	1055.5	3,304.2	871.9	3,304.2		1321.7
270+89.07 – 271+14.07	24	25.0	66.7			1.5" 2.8		7						66.7	
271+14.07 – 272+71.59	BRIDGE	LIMITS FOR DETAILS SEE SHEET					106-118								
272+71.59 – 272+96.59	24	25.0	66.7			1.5" 2.8		7						66.7	
272+96.59 – 515+00	24	24,203.41	64,542.4			2,241.1	3,137.5		7,171.4	20,617.7	64,542.4	17,032.0	64,542.4		25,817.0
471+54.73 – 472+54.73	6 AVE	100.0	66.7			2.3	3.2		7.4	21.3	66.7	17.6	66.7		26.7
472+54.73 – 475+00	12	245.27	327.0			11.4	15.9		36.3	104.5	327.0	86.3	327.0		130.8
RAMP D															
0+00 – 4+53.07	25.5 AVE	453.07	1,283.7			44.6	62.4		142.6	410.1	1,283.7	338.8	1,283.7		513.5
4+53.07 – 5+53.07	17 AVE	100.0	188.9								188.9	49.8			
5+53.07 – 5+78.07	16	25.0	44.4								44.4	11.7			
4+53.07 – 5+78.07	16	125.0	222.2			7.7	10.8		24.7	71.0			222.2		88.9
5+78.07 – 10+63.69	16	485.62	863.3			30.0	42.0	86.3							
10+63.69 – 11+63.69	20 AVE	100.0	222.2			7.7	10.8	22.2							
11+63.69 – 13+63.63	24	199.94	533.2			18.5	25.9	53.3							
13+63.63 – 14+07.13	28.5 AVE	43.5	137.8			4.8	6.7	13.8							
14+07.13 – 14+37.13	VAR	30	215.0			7.5	10.5	21.5							
RAMP C															
0+28.10 – 0+58.10	VAR	30	189			3.3	4.6	18.9							
0+58.10 – 1+26.44	VAR	68.34	237			8.2	11.5	23.7							
1+26.44 – 6+75	16	548.56	975.2			33.9	47.4	97.5							
6+75 – 7+52.02	16	77.02	136.9								136.9	36.1			
7+52.02 – 9+02.02	18 AVE	150.0	300.0								300.0	79.2			
9+02.02 – 12+02.02	16 AVE	300.0	533.3								533.3	140.7			
495+36 – 500+00	15 AVE	464.0	773.3									451.1			
6+75 – 7+40	16	65	115.6			4.0	5.6		12.8	36.9			115.6		46.2
7+40 – 12+02.02	32 AVE	462.02	1,642.7			57.0	79.9		182.5	524.8			1,642.7		657.1
500+00 – 512+00	12.5 AVE	1200.0	1,666.7			57.9	81.0		185.2	532.4	1,666.7	439.8	1,666.7		666.7
SUB-TOTALS (Carried to Sheet 86)						2,660.2	3,716.3	351.2	8,130.0	23,374.2	72,394.2	19,555.0	73,171.2	133.4	29,268.6

PAVEMENT DATA

STATION TO STATION ℄ SURVEY	W.P. FEET	LENGTH LIN. FEET	PAVEMENT AREA SQ. YD.			846 ASPH.CONC SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4 CU.YD.	407 TACK COAT AS PER PLAN GALLONS	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	202 Pavement Removed (Including Asphalt Surface) SQ.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	202 WEARING COURSE REMOVED SQ. YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
WESTBOUND															
258+50 – 270+84.07	24	1,234.07	3,290.9			114.3	160.0		365.7	1,051.3	3,290.9	868.4	3,290.9		1316.4
270+84.07 – 271+09.07	24	25.0	66.7			1.5" 2.8		7						66.7	
271+09.07 – 272+76.59	BRIDGE	LIMITS FOR DETAILS SEE SHEET					106-118								
272+76.59 – 273+01.59	24	25.0	66.7			1.5" 2.8		7						66.7	
273+01.59 – 515+00	24	24,198.41	64,529.1			2,240.6	3,136.8		7,169.9	20,613.5	64,529.1	17,028.5	64,529.1		25,811.6
463+69.44 – 475+69.44	12.5 AVE	1200.0	1,666.7			57.9	81.0		185.2	532.4	1,666.7	439.8	1,666.7		666.7
475+69.44 – 480+32	15 AVE	462.56	770.9									449.7			
RAMP A															
15+49.67 – 12+49.67	16 AVE	300.0	533.3								533.3	140.7			
12+49.67 – 10+99.67	18 AVE	150.0	300.0								300.0	79.2			
10+99.67 – 10+00	16	99.67	177.2								177.2	46.8			
15+49.67 – 10+88	32 AVE	461.67	1,641.5			57.0	79.8		182.4	524.4			1,641.5		656.6
10+88 – 10+00	16	88.0	156.4			5.4	7.6		17.4	50.0			156.4		62.6
10+00 – 2+86	16	714.0	1,269.3			44.1	61.7	126.9							
2+86 – 2+16	18 AVE	70	140.0			4.9	6.8	14.0							
2+16 – 1+86	VAR	30	68.9			2.4	3.3	6.9							
RAMP E															
1+45 – 1+23.41	VAR	21.59	96			3.3	4.7	9.6							
1+23.41 – 0+78.53	20	44.88	99.7			3.5	4.8	10.0							
0+78.53 – 0+57.31	21.5 AVE	21.22	50.7			1.8	2.5	5.1							
0+57.31- 0+27.31	VAR	30	112			1.9	2.7	11.2							
RAMP B															
14+49.33 – 14+19.33	VAR	30	202			3.5	4.9	20.2							
14+19.33 – 13+94.71	VAR	24.62	44			1.5	2.1	4.4							
13+94.71 – 6+25	16	769.71	1,368.4			47.5	66.5	136.8							
6+25 – 5+53.07	16	71.93	127.9								127.9	33.8			
5+53.07 – 4+53.07	17 AVE	100.0	188.9								188.9	49.8			
6+25 – 4+53.07	16	171.93	305.7			10.6	14.9		34.0	97.7			305.7		122.3
4+53.07 – 0+00	25.5 AVE	453.07	1,283.7			44.6	62.4		142.6	410.1	1,283.7	338.8	1,283.7		513.5
500+75 – 503+20	12	245.0	326.7			11.3	15.9		36.3	104.4	326.7	86.2	326.7		130.7
503+20 – 504+20	6 AVE	100.0	66.7			2.3	3.2		7.4	21.3	66.7	17.6	66.7		26.7
U-TURN MEDIAN OPENINGS															
338+10			510.2			17.7	24.8			6" 85.0		163.0			
450+25			510.2			17.7	24.8			6" 85.0		163.0			
SUB-TOTALS (Carried to Sheet 86)						2699.4	3768.5	359.1	8,140.9	23,575.1	72,491.1	19,905.3	73,267.4	133.4	29,307.0

PAVEMENT DATA TABLE

CALC. BY D.M. DATE 2-24-88 CHKD. BY RM DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

FHWA REGION	STATE	PROJECT	
5	OHIO		

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PAVEMENT DATA

STATION TO STATION ℄ SURVEY	W.P. FEET	LENGTH LIN. FEET	PAVEMENT AREA SQ. YD.			846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 1 1/4 CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4 CU.YD.	407 TACK COAT AS PER PLAN GALLONS	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	202 Pavement Removed (Including Asphalt Surface) SQ.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
EASTBOUND														
515+00 – 733+97.69 Bk.	24	21,897.69	58,393.8			2,027.6	2,838.6		6,488.2	18,653.6	58,393.8	15,409.5	58,393.8	23,357.5
550+00 Ah. – 553+00	24	300.0	800.0			27.8	38.9		88.9	255.6	800.0	211.1	800.0	320
704+05.5 – 705+05.5	6 AVE	100.0	66.7			2.3	3.2		7.4	21.3	66.7	17.6	66.7	26.7
705+05.5 – 708+00	12	294.5	392.7			13.6	19.1		43.6	125.4	392.7	103.6	392.7	157.1
S.W. RAMP														
708+00 – 712+03.3	25.5 AVE	403.3	1,142.7			39.7	55.5		127.0	365.0	1,142.7	301.5	1,142.7	457.1
712+03.3 – 713+01.3	17 AVE	98.0	185.1								185.1	48.8		
713+01.3 – 713+28.3	16	27.0	48.0								48.0	12.7		
712+03.3 – 713+28.3	16	125.0	222.2			7.7	10.8		24.7	71.0			222.2	88.9
713+28.3 – 720+54.06	16	725.76	1,290.2			44.8	62.7	129.1						
720+54.06 – 720+99	VAR	44.94	81.9			2.8	4.0	8.2						
720+99 – 721+29	VAR	30	234.0			4.1	5.7	23.4						
S.E. RAMP														
719+41.6 – 719+71.6	VAR	30	242			4.2	5.9	24.2						
719+71.6 – 720+60.5	VAR	88.9	138			2.4	3.4	13.8						
720+60.5 – 727+00	16	639.5	1,136.9			39.5	55.3	113.7						
727+75 – 731+50	15 AVE	375.0	625.0									364.6		
727+00 – 727+50	16	50.0	88.9								88.9	23.5		
727+50 – 728+50	18 AVE	100.0	200.0								200.0	52.8		
728+50 – 731+50	16 AVE	300.0	533.3								533.3	140.7		
727+00 – 727+75	16	75.0	133.3			4.6	6.5		14.8	42.6			133.3	53.3
727+75 – 731+50	32 AVE	375.0	1333.3			46.3	64.8		148.1	425.9			1,333.3	533.3
731+50 – 733+97.69 Bk.	19.48	547.69	1,185.4			41.2	57.6		131.7	378.7	1,185.4	312.8	1,185.4	474.2
550+00 Ah. – 553+00														
SUB-TOTALS (Carried to Sheet 86)						2,308.6	3,232.0	312.4	7,074.4	20,339.1	63,036.6	16,999.2	63,670.1	25,468.1

PAVEMENT DATA

STATION TO STATION ℄ SURVEY	W.P. FEET	LENGTH LIN. FEET	PAVEMENT AREA SQ. YD.			846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 1 1/4 CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4 CU.YD.	407 TACK COAT AS PER PLAN GALLONS	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	202 Pavement Removed (Including Asphalt Surface) SQ.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
WESTBOUND														
515+00 – 733+97.69 Bk.	24	21,897.69	58,393.8			2027.6	2838.6		6488.2	18,653.6	58,393.8	15,409.5	58,393.8	23,357.5
550+00 Ah. – 553+00	24	300.0	800.0			27.8	38.9		88.9	255.6	800.0	211.1	800.0	320
696+00 – 708+00	12.5 AVE	1,200.0	1,666.7			57.9	81.0		185.2	532.4	1666.7	439.8	1666.7	666.7
708+00 – 710+60.5	15 AVE	260.5	434.2									253.3		
N.W. RAMP														
708+00 – 710+47.2	17 AVE	247.2	466.9								466.9	123.2		
710+47.2 – 711+50	16	102.8	182.8								182.8	48.2		
708+00 – 710+62	32 AVE	262.0	931.6			32.3	45.3		103.5	297.6			931.6	372.6
710+62 – 711+50	16	88.0	156.4			5.4	7.6		17.4	50.0			156.4	62.6
711+50 – 718+95.5	16	745.5	1,325.3			46.0	64.4	132.5						
718+95.5 – 719+83.73	VAR	88.23	138			4.8	6.7	13.8						
719+83.73 – 720+13.73	VAR	30	242			4.2	5.9	24.2						
N.E. RAMP														
718+89.1 – 719+19.1	VAR	30	231			4.0	5.6	23.1						
719+19.1 – 719+64.34	VAR	45.24	116			4.0	5.6	11.6						
719+64.34 – 726+94	16	729.66	1,297.2			45.0	63.1	129.7						
726+94 – 727+20.69	16	26.69	47.4								47.4	12.5		
727+20.69 – 728+19	17 AVE	98.91	185.7								185.7	49.0		
726+94 – 728+19	16	125.0	222.2			7.7	10.8		24.7	71.0			222.2	88.9
728+19 – 732+80.69	25.5 AVE	461.69	1,308.1			45.4	63.6		145.3	417.9	1,308.1	345.2	1,308.1	523.2
732+80.69 – 733+97.69	12	117.0	156			5.4	7.6		17.3	49.8	156.0	41.2	156.0	62.4
550+00 – 551+23	12	123.0	164			5.7	8.0		18.2	52.3	164.0	43.3	164.0	65.6
551+23 – 552+23	6 AVE	100.0	66.7			2.3	3.2		7.4	21.3	66.7	17.6	66.7	26.7
U-TURN MEDIAN OPENINGS														
521+25			510.2			17.7	24.8			6" 85.0		163.0		
686+30			510.2			17.7	24.8			6" 85.0		163.0		
SUB-TOTALS (Carried to Sheet 86)						2,360.9	3,305.5	334.9	7,096.1	20,571.5	63,438.1	17,319.8	63,865.5	25,546.2

SHOULDER DATA TABLE

CALC. BY D.W. DATE 1-28-88 CHKD. BY RM DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

FHWA REGION	STATE	PROJECT	
5	OHIO		

* CITY, STATE AND FEDERAL.

SHOULDER DATA

STATION TO STATION ℄ SURVEY I-70	EXISTING LT. SIDE W.B. FEET	EXISTING LT. SIDE LIN. FEET	EXISTING RT. SIDE W.B. FEET	EXISTING RT. SIDE LIN. FEET	AREA SQ. YDS.	846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4" CU.YD.	617 COMPACTED AGGREGATE TYPE A (4" THICK.) CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT AS PER PLAN GAL'S	203 EMBANKMENT CU.YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
EASTBOUND															
* 0+00 – 36+00	4	3600			1600.0	55.6	77.8	216.7	605.6	244.4	1672.2	1600.0		86.1	880.0
36+00 – 44+43	4	843			374.7	13.0	18.2	50.7	141.7	57.3	391.6	374.7		20.2	206.1
44+43 – 45+57		BRIDGE LIMITS : FOR DETAILS SEE SHEET					106-118								
45+57 – 62+82.70	4	1,725.7			767.0	26.6	37.3	103.8	290.3	117.2	801.6	767.0		41.3	421.8
62+82.70 – 64+65.80		BRIDGE LIMITS : FOR DETAILS SEE SHEET					106-118								
64+65.80 – 143+21.06	4	7,855.26			3,491.2	121.2	169.7	472.8	1321.3	533.4	3648.8	3,491.2		187.9	1920.2
250+00 – 258+50	4	850.0			377.8	13.1	18.4	51.2	142.9	57.7	394.8	377.8		20.3	207.8
*0+00- 36+00			10	3600.0	4000.0	138.9	194.4	216.6	1372.2	511.1	3072.3	4000.0		86.1	1840.0
36+00 – 44+43			10	843.0	936.7	32.5	45.6	50.7	321.3	119.7	719.4	936.7		20.2	430.9
44+43 – 45+57		BRIDGE LIMITS : FOR DETAILS SEE SHEET					106-118								
45+57 – 46+75			10	118.0	131.1	4.6	6.4	7.1	44.9	16.8	100.7	131.1		2.8	60.3
46+75 – 47+75.72			9AVE	100.72	100.7	3.5	4.9	6.0	34.8	13.1	79.4	100.7		2.4	47.0
47+75.72 – 50+20.27			8	244.55	217.4	7.5	10.6	14.7	75.9	28.7	177.0	217.4		5.8	103.2
RAMP E															
50+20.99 – 54+63			8	442.01	392.9	13.6	19.1	26.6	137.1	51.8	319.9	392.9		10.6	186.6
54+63 – 56+00			5.5	137.0	83.7	2.9	4.1	8.3	30.3	11.8	77.0	83.7		3.3	42.6
56+00 – 64+34.06			3	834.06	278.0	9.7	13.5	12.9					27.8		
64+34.06 – 64+64.06			3	30.0	10.0	0.3	0.5	0.5					1.0		
54+74.06- 56+00	3	125.94			42.0	1.5	2.0	1.9					4.2		
56+00 – 62+64.06	3	664.06			221.4	7.7	10.8	10.2					22.1		
62+64.06 – 63+64.06	2.5AVE	100.0			27.8	1.0	1.4						2.8		
EASTBOUND															
54+75 – 57+29.44			10	254.44	282.7	9.8	13.7	15.3	97.0	36.1	217.2	282.7		6.1	130.1
RAMP D															
57+29.44 – 59+44			9AVE	214.56	214.6	7.5	10.4	12.9	74.1	27.8	169.2	214.6		5.1	100.1
59+44 – 62+82.70			8	338.7	301.1	10.5	14.6	20.4	105.0	39.7	245.2	301.1		8.1	143.0
62+82.7- 64+65.80		BRIDGE LIMITS : FOR DETAILS SEE SHEET					106-118								
64+65.80 – 66+75			8	209.2	186.0	6.5	9.0	12.6	64.9	24.5	151.4	186.0		5.0	88.3
66+75 – 68+00			5.5	125.0	76.4	2.7	3.7	7.5	27.7	10.8	70.2	76.4		3.0	38.9
68+00 – 81+70.18			3	1,370.18	456.7	15.9	22.2	21.1					45.7		
81+70.18 – 82+00.18			3	30.0	10.0	0.3	0.5	0.5					1.0		
66+75 – 71+96	3	521.0			173.7	6.0	8.4	8.0					17.4		
71+96 – 72+72	1	76.0			8.4	0.3	0.4	1.2					0.8		
78+93 – 80+00.18	3	107.18			35.7	1.2	1.7	1.7					3.6		
80+00.18 – 81+00.18	2.5AVE	100.0			27.8	1.0	1.4						2.8		
EASTBOUND															
66+75 – 76+05			10	930.0	1033.3	35.9	50.2	56.0	354.5	132.0	793.7	1033.3		22.2	475.3
RAMP C															
60+52.33 – 61+72	3	119.67			40.0	1.4	1.9	1.8					4.0		
68+55 – 69+35	1	80.0			8.9	0.3	0.4						0.9		
69+35 – 75+25	3	590.0			196.7	6.8	9.6	9.1					19.7		
75+25 – 76+05	3	80			26.7	0.9	1.3	4.8	10.6	4.4	31.9	26.7		1.9	16.0
60+52.33 – 61+10.06			3	130.0	43.3	1.5	2.1	2.0					4.3		
61+10.06 – 62+00			3	89.94	30.0	1.0	1.5	1.4					3.0		
62+00 – 62+50			4.5AVE	50.0	25.0	0.9	1.2	0.8					2.5		
62+50 – 68+50			6	600.0	400.0	13.9	19.4	9.3					40.0		
68+50 – 69+00			4.5AVE	50.0	25.0	0.9	1.2	0.8					2.5		
CITY, STATE & FED. SUB TOTALS						194.5	272.2	433.4	1977.8	755.8	4744.5	5600.0		172.2	2720.0
STATE & FED. SUBTOTAL (CARRIED TO SHEET 86)						383.9	537.3	1004.6	3274.3	1282.8	8389.0	8994.0	206.1	366.2	4618.2

SHOULDER DATA

STATION TO STATION ℄ SURVEY	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.	EXISTING LIN. FEET	EXISTING RT. SIDE W.B. FEET	EXISTING RT. SIDE LIN. FEET	AREA SQ. YDS.	846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4" CU.YD.	617 COMPACTED AGGREGATE TYPE A (4" THICK.) CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT AS PER PLAN GAL'S	203 EMBANKMENT CU.YD.
69+00 – 75+25			3	625.0	208.3	7.2	10.1	9.6					20.8	
75+25 – 76+50	25		3	125.0	41.7	1.4	2.0	7.5	16.6	6.9	49.9	41.7		3.0
76+50 – 77+74.74	38.9		5.5AVE	124.75	76.2	2.6	3.7	7.5	27.7	10.8	70.2	76.4		3.0
77+74.74 – 80+74.74	126.6		8	300.0	266.6	9.3	12.9	18.0	93.0	35.2	217.0	266.4		7.2
EASTBOUND														
80+75 – 91+79	466.1		8	1104.0	981.3	34.1	81.8	66.4	342.4	129.5	799.1	981.3		26.4
91+79 – 92+75	44.8		9 AVE	96.0	96.0	3.3	4.7	5.8	33.2	12.4	75.7	96.0		2.3
92+75 – 143+21.06	2579.1		10	5,046.06	5,606.7	194.7	272.5	303.7	1923.4	716.4	4,306.3	5,606.7		120.7
250+00 – 258+50	434.4		10	850.0	944.4	32.8	45.9	51.2	324.0	120.7	725.4	944.4		20.3
SUBTOTAL (CARRIED TO SHEET 86)	3714.9					285.4	433.6	469.7	2,760.3	1,031.9	6,243.6	8,012.9	20.8	182.9

SHOULDER DATA TABLE

* City, State and Federal

SHOULDER DATA

STATION TO STATION ℄ SURVEY I-70	EXISTING LT. SIDE W.B. FEET	EXISTING LT. SIDE LIN. FEET	EXISTING RT. SIDE W.B. FEET	EXISTING RT. SIDE LIN. FEET	AREA SQ. YDS.	846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4 CU.YD.	617 COMPACTED AGGREGATE TYPE A (4" THICK.) CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT AS PER PLAN GAL'S	203 EMBANKMENT CU.YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
WESTBOUND															
* 0+00 – 36+00			4	3600.0	1600.0	55.6	77.8	216.7	605.6	244.4	1672.2	1600.0		86.1	880.0
36+00 – 44+43			4	843.0	374.7	13.0	18.2	50.7	141.7	57.2	391.6	374.7		20.2	206.1
44+43 – 45+57	BRIDGE LIMITS FOR DETAILS SEE SHEET						106–118								
45+57 – 62+81.1			4	1724.1	766.3	26.6	37.3	103.8	290.0	117.1	800.8	766.3		41.2	421.4
62+81.1 – 64+60.21	BRIDGE LIMITS FOR DETAILS SEE SHEET						106–118								
64+60.21 – 143+21.06			4	7860.85	3493.7	121.3	169.8	473.1	1322.3	533.8	3651.4	3493.7		188.0	1921.4
250+00 – 258+50			4	850.0	377.8	13.1	18.4	51.2	142.9	57.7	394.8	377.8		20.3	207.8
0+00 – 36+00	10	3600			4000.0	138.9	194.4	216.6	1372.2	511.1	3072.3	4000.0		86.1	1840.0
36+00 – 41+62	10	562.0			624.4	21.7	50.4	33.9	214.3	79.8	479.5	624.4		13.5	287.2
41+62 – 42+58	9 AVE.	96.0			96.0	3.3	4.7	5.8	33.2	12.4	75.6	96.0		2.3	44.8
42+58 – 44+43	8	185.0			164.4	5.7	8.0	11.1	57.4	21.7	133.9	164.4		4.4	78.1
44+43 – 45+57	BRIDGE LIMITS FOR DETAILS SEE SHEET						106–118								
45+57 – 53+62	8	805.0			715.6	24.8	34.8	48.5	249.7	94.4	582.7	715.6		19.3	339.9
RAMP A															
53+62.26 – 56.62.26	8	300.0			266.7	9.3	13.0	18.0	93.0	35.2	217.1	266.7		7.2	126.7
56+62.26 – 57+89	5.5 AVE	126.74			77.5	2.7	3.8	7.6	28.1	11.0	71.2	77.5		3.0	39.4
57+89 – 59+25	3	136.0			45.3	1.6	2.2	8.2	18.0	7.6	54.4	45.3		3.3	27.2
59+25 – 65+53	3	628.0			209.3	7.3	10.2	9.7					20.9		
65+53 – 65+83	3	30.0			10.0	0.3	0.5	0.5					1.0		
62+85.37 – 63+35.37			7.5 AVE	50.0	41.7	1.4	2.0						4.2		
63+35.37 – 65+ 3			3												
65+53 – 65+83			3	30.0	10.0	0.2	0.2						1.0		
RAMP F															
58+30 – 59+25			3	95.0	31.7	1.1	1.5	5.8	12.7	5.3	38.0	31.7		2.3	19
59+25 – 64+03			3	478.0	159.3	5.5	7.7	7.4					15.9		
64+03 – 64+33			3	30.0	10.0	0.2	0.2	0.5					1.0		
WESTBOUND															
58+32 –62+81.11	10	449.11			499.0	17.3	24.3	27.0	171.2	63.8	383.2	499.0		10.7	229.6
62+81.11 – 64+60.21	BRIDGE LIMITS FOR DETAILS SEE SHEET						106–118								
64+60.21 – 73+95.27	10	935.06			1039.0	36.1	50.5	56.3	356.4	132.8	798.0	1039.0		22.4	477.9
RAMP B															
64+41 – 64+71			3	30.0	10.0	0.2	0.2	0.5					1.0		
64+71 – 72+71.21			3	800.21	266.7	9.3	13.0	12.3					26.7		
72+71.21 – 73+96.21			3	125.0	41.7	1.4	2.0	7.5	16.6	6.9	50.0	41.7		3.0	25.0
64+41 – 64+71	3	90			30.0	1.0	1.5	1.4					3.0		
64+71 – 64+95.92	3	30			10.0	0.3	0.5	0.5					1.0		
64+95.92 – 72+71.21	3	775.29			258.4	9.0	12.6	12.0					25.8		
72+71.21 – 73+96.21	5.5 AVE	125.0			76.4	2.7	3.7	7.5	27.7	10.8	70.2	76.4		3.0	38.9
73+96.21 – 78+49.28	8	453.07			402.7	14.0	19.6	27.3	140.5	53.1	328.0	402.7		10.8	191.3
WESTBOUND															
78+50 – 80+94.55	8	244.55			217.4	7.5	10.6	14.7	75.9	28.7	177.0	217.4		5.8	103.2
80+94.55 – 81+95.27	9 AVE	100.72			100.7	3.5	4.9	6.0	34.8	13.1	79.4	100.7		2.4	47.0
81+95.27 – 143+21.06	10	6125.79			6806.4	236.3	330.9	368.7	2335.0	869.7	5227.7	6,806.4		146.5	3131.0
250+00 – 258+50	10	850.0			944.4	32.8	45.9	51.2	324.0	120.7	725.4	944.4		20.3	434.4
CITY, STATE & FED. SUBTOTALS						194.5	272.2	433.4	1977.8	755.5	4744.5	5600.0		172.2	2720.0
STATE & FED SUBTOTAL (CARRIED TO SHEET 86)						633.0	906.6	1432.1	6085.4	2332.9	14729.9	17161.8	108.8	549.9	8397.3

SHOULDER DATA

STATION TO STATION ℄ SURVEY	EXISTING LT. SIDE W.B. FEET	EXISTING LT. SIDE LIN. FEET	EXISTING RT. SIDE W.B. FEET	EXISTING RT. SIDE LIN. FEET	AREA SQ. YDS.	846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4 CU.YD.	617 COMPACTED AGGREGATE TYPE A (4" THICK.) CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	304 AGGREGATE BASE 4" CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT AS PER PLAN GAL'S	203 EMBANKMENT CU.YD.

SHOULDER DATA TABLE

CALC. BY D.M DATE 2-29-88 CHKD. BY RM DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

FHWA REGION	STATE	PROJECT	
5	OHIO		

84
126

SHOULDER DATA

STATION TO STATION ℄ SURVEY I-70	EXISTING LT. SIDE W.B. FEET	EXISTING LT. SIDE LIN. FEET	EXISTING RT. SIDE W.B. FEET	EXISTING RT. SIDE LIN. FEET	AREA SQ. YDS.	846 ASPH.CONC SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4" CU.YD.	617 COMPACTED AGGREGATE TYPE A (4" THICK.) CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT AS PER PLAN GAL'S	203 EMBANKMENT CU.YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
EASTBOUND															
258+50 – 271+14.07	4	1,264.07			561.8	19.5	27.3	76.1	212.6	85.8	587.2	561.8		30.2	309.0
271+14.07 – 272+76.59		BRIDGE LIMITS FOR DETAILS SEE SHEET					106-118								
272+76.59 – 515+00	4	24,223.41			10,766.0	373.8	523.3	1,457.9	4,074.6	1,644.8	11,251.9	10,766.0		579.4	5921.3
258+50 – 271+14.07			10	1,264.07	26,914.9	934.5	1,308.4	76.1	481.8	179.5	1078.8	26,914.9		30.2	646.1
271+14.07 – 272+76.59		BRIDGE LIMITS FOR DETAILS SEE SHEET					106-118								
272+76.59 – 471+54.73			10	19,878.14	22,086.8	766.9	1,073.7	1,196.3	7,577.0	2,822.2	16963.9	22,086.8		475.5	10159.9
471+54.73 – 472+54.73			9 AVE	100.0	100.0	3.5	4.9	6.1	34.6	13.0	78.9	100.0		2.4	46.7
472+54.73 – 475+00			8	245.27	218.0	7.6	10.6	14.7	76.1	28.8	177.5	218.0		5.9	103.6
RAMP D															
0+00 – 4+53.07			8	453.07	402.7	14.0	19.6	27.3	140.5	53.1	327.9	402.7		10.8	191.3
4+53.07 – 5+78.07			5.5AVE	125.0	76.4	2.7	3.7	7.5	27.7	10.8	70.2	76.4		3.0	38.9
5+78.07 – 13+75.62			3	797.55	265.9	9.2	12.9	12.3					26.6		
13+75.62 – 14+07.13			3	33	11.0	0.4	0.5	0.5					1.1		
14+07.13 – 14+37.13			3	92	30.7	0.5	0.7	1.4					3.1		
4+53.07 – 5+78.07	3	125.0			41.7	1.4	2.0	7.5	16.6	6.9	50.0	41.7		3.0	25
5+78.07 – 14+07.13	3	829.06			276.4	9.6	13.4	12.8				276.4			11.0
14+07.13 – 14+37.13	3	30			10.0	0.2	0.2	0.5					1.0		
EASTBOUND															
479+54.73 – 495+36			10	1,581.27	1,757.0	61.0	85.4	95.2	602.8	224.5	1,349.4	1757.0		37.8	808.2
RAMP C															
0+28.10 – 0+58.10	3	30.0			10.0	0.2	0.2	0.5					1.0		
0+58.10 – 6+75	3	616.9			205.6	7.1	10.0	9.5					20.6		
6+75 – 7+40	3	65.0			21.7	0.8	1.0	3.9	8.6	3.6	26.0	21.7		1.5	13.0
0+28.10 – 0+58.10			3	90	30.0	0.5	1.5	1.4					3.0		
0+58.10 – 6+75			3	616.9	205.6	7.1	10.0	9.5					20.6		
6+75 – 7+77			3	102.0	34.0	1.2	1.7	6.1	13.5	5.7	40.7	34.0		2.4	20.4
7+77 – 9+02.02			5.5AVE	125.02	76.4	2.6	3.7	7.5	27.7	10.8	70.2	76.4		3.0	38.9
9+02.02 – 12+02.02			8	300.0	266.7	9.3	13.0	18.0	93.0	35.2	217.1	266.7		7.2	126.7
EASTBOUND															
500+00 – 511+04			8	1104.0	981.3	34.1	47.7	66.4	342.5	129.5	799.1	981.3		26.4	466.1
511+04 – 512+00			9 AVE	96.0	96.0	3.3	4.7	5.8	33.2	12.4	75.7	96.0		2.3	44.8
512+00 – 515+00			10	300.0	333.3	11.6	16.2	18.0	114.3	42.6	256.0	333.3		7.2	153.3
SUBTOTAL (CARRIED TO SHEET 86)						2,282.6	3,196.3	3138.8	13877.1	5309.2	33420.5	65011.1	77.0	1228.2	19124.2

SHOULDER DATA

STATION TO STATION ℄ SURVEY I-70	EXISTING LT. SIDE W.B. FEET	EXISTING LT. SIDE LIN. FEET	EXISTING RT. SIDE W.B. FEET	EXISTING RT. SIDE LIN. FEET	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.	AREA SQ. YDS.	846 ASPH.CONC SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4" CU.YD.	617 COMPACTED AGGREGATE TYPE A (4" THICK.) CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT AS PER PLAN GAL'S	203 EMBANKMENT CU.YD.
WESTBOUND															
258+50 – 271+09.07			4	1,259.07	307.8	559.6	19.4	27.2	75.8	211.8	85.5	584.8	559.6		30.1
271+09.07 – 272+76.59		BRIDGE LIMITS : FOR DETAILS SEE SHEET						106-118							
272+76.59 – 515+00			4	24,223.41	5921.3	10,766.0	373.8	523.3	1,457.9	4,074.6	1,644.8	11,251.9	10,766.0		579.4
258+50 – 271+09.07	10	1,259.07			643.5	1,399.0	48.6	68.0	75.8	479.9	178.8	1,074.5	1,399.0		30.1
271+09.07 – 272+76.59		BRIDGE LIMITS : FOR DETAILS SEE SHEET						106-118							
272+76.59 – 463+69.44	10	19,092.85			9758.6	21,214.3	736.6	1,031.3	1,149.1	7,277.7	2,710.7	16,293.7	21,214.3		456.7
463+69.44 – 464+65.44	9AVE	96.0			44.8	96.0	3.3	4.7	5.8	33.2	12.4	75.7	96.0		2.3
464+65.44 – 475+69.44	8	1,104.0			466.1	981.3	34.1	47.7	66.4	342.5	129.5	799.1	981.3		26.4
RAMP A															
15+49.67 – 12+49.67	8	300.0			126.7	266.7	9.2	13.0	18	93.0	35.2	217.1	266.7		7.2
12+49.67 – 11+24.67	5.5AVE	125.0			38.9	76.4	2.7	3.7	7.5	27.7	10.8	70.2	76.4		3.0
11+24.67 – 10+00	3	124.67			24.9	41.6	1.4	2.0	7.5	16.6	6.9	49.9	41.6		3.0
10+00 – 2+16	3	784.0				261.3	9.1	12.7	12.1					26.1	
2+16 – 1+86	3	30				10.0	0.2	0.2	0.5					1.0	
2+85 – 4+00			3	115.0		38.3	1.3	1.9	1.8					3.8	
RAMP E															
0+27.31 – 0+57.31			3	30		10.0	0.2	0.2	0.5					1.0	
0+57.31 – 1+45			3	87.69		29.2	1.0	1.4	1.4					2.9	
0+27.31 – 0+57.31	3	30				10.0	0.2	0.2	0.5					1.0	
0+57.31 – 4+73.67	3	153.1				51.0	1.8	2.5	2.4					5.1	
RAMP A															
10+88 – 10+00			3	88.0	17.6	29.3	1.0	1.4	5.3	11.7	4.9	35.2	29.3		2.1
10+00 – 4+73.67			3	526.33	105.3	175.4	6.1	8.5	31.7	69.8	29.2	210.4	175.4		12.6
WESTBOUND															
480+32 – 496+20.27	10	1,588.27			811.8	1,764.7	61.3	85.8	95.5	605.4	225.5	1,355.4	1,764.7		38.0
RAMP B															
14+49.33 – 14+19.33			3	30		10.0	0.2	0.2	0.5					1.0	
14+19.33 – 6+25			3	794.33		264.8	9.2	12.9	12.2					26.5	
6+25 – 4+53.07			3	171.93	34.4	57.3	2.0	2.8	10.3	22.8	9.6	68.7	57.3		4.1
14+49.33 – 14+19.33	3	94				31.3	0.5	0.8	1.5					3.1	
14+19.33 – 6+25	3	794.33				264.8	9.2	12.9	12.2					26.5	
6+25 – 4+53.07	5.5AVE	171.93			53.5	105.1	3.6	5.1	10.3	38.1	14.9	96.6	105.1		4.1
4+53.07 – 0+00	8	453.07			191.3	402.7	14.0	19.6	27.3	140.5	53.1	327.9	402.7		10.8
WESTBOUND															
500+75 – 503+20	8	245.0			103.4	217.8	7.6	10.6	14.7	76.0	28.7	177.4	217.8		5.9
503+20 – 504+20	9AVE	100.0			46.7	100.0	3.5	4.9	6.0	34.6	13.0	78.9	100.0		2.4
504+20 – 515+00	10	1,080.0			552	1,200.0	41.7	58.3	65.0	411.7	153.3	921.7	1,200.0		25.8
SUBTOTAL (CARRIED TO SHEET 86)					19248.6		1402.8	1963.8	3175.5	13,967.6	5,346.8	33,689.1	39,453.2	98.0	1,244.0

SHOULDER DATA TABLE

CALC. BY D.M. DATE 1-09-98 CHKD. BY R.M. DATE 3-4-98

FAI-70-0.00
LIC-70-0.00

FHWA REGION	STATE	PROJECT	
5	OHIO		

85/126

SHOULDER DATA

STATION TO STATION ℄ SURVEY I-70	EXISTING LT. SIDE W.B. FEET	EXISTING LT. SIDE LIN. FEET	EXISTING RT. SIDE W.B. FEET	EXISTING RT. SIDE LIN. FEET	AREA SQ. YDS.	846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4" CU.YD.	617 COMPACTED AGGREGATE TYPE A (4" THICK.) CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT AS PER PLAN GAL'S	203 EMBANKMENT CU.YD.	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.
EASTBOUND															
515+00 – 733+97.69 Bk.	4	21,897.69			9,732.3	337.9	473.1	1,317.9	3,683.4	1,486.9	10,171.6	9,732.3		523.8	5352.8
550+00 Ah. – 553+00	4	300.0			133.3	4.6	6.5	18.0	50.5	20.4	139.3	133.3		7.2	73.3
515+00 – 704+05.5			10	18,905.5	21,006.1	729.4	1,021.1	1,137.8	7,206.3	2,684.1	16,133.9	21,006.1		452.2	9662.8
704+05.5 – 705+05.5			9AVE	100.0	100.0	3.5	4.9	6.0	34.6	13.0	78.9	100.0		2.4	46.7
705+05.5 – 708+00			8	294.5	261.8	9.1	12.7	17.8	91.4	34.5	213.1	261.8		7.0	124.4
S.W. RAMP															
708+00 – 712+03.3			8	403.3	358.5	12.4	17.4	24.3	125.1	47.3	291.9	358.5		9.6	170.3
712+03.3 – 713+28.3			5.5AVE	125.0	76.4	2.7	3.7	7.5	27.7	10.8	70.2	76.4		3.0	38.9
713+28.3 – 720+93			3	764.7	254.9	8.9	12.4	11.8					25.5		
720+93 – 721+29			3	90.0	30.0	0.5	0.7	1.4					3.0		
712+03.3 – 713+28.3	3	125.0			41.7	1.4	2.0	1.9					4.2	3.0	
713+28.3 – 720+54.06	3	725.76			241.9	8.4	11.8	11.1					24.2		
720+54.06 – 720+99	3	33.0			11.0	0.4	0.5	0.5					1.1		
720+99 – 721+29	3	50.0			16.7	0.3	0.4	0.8					1.7		
EASTBOUND															
712+09.7 – 727+75			10	1,565.3	1,739.2	60.4	84.5	94.2	596.7	222.2	1,335.8	1,739.2		37.4	800.0
S.E. RAMP															
719+41.6 – 719+71.6			3	33.0	11.0	0.2	0.3	0.5					1.1		
719+71.6 – 720+60.5			3	80.0	26.7	0.9	1.3	1.2					2.7		
720+60.5 – 727+00			3	639.5	213.2	7.4	10.4	9.9					21.3		
727+00 – 727+75			3	75.0	25.0	0.9	1.2	4.5	10.0	4.2	30.0	25.0		1.8	15
719+41.6 – 719+71.6	3	90.0			30.0	0.5	0.7	1.4					3.0		
719+71.6 – 720+20	3	50.0			16.7	0.6	0.8	0.8					1.7		
720+20 – 727+00	3	680.0			226.7	7.9	11.0	10.5					22.7		
727+00 – 727+27	3	27.0			9.0	0.3	0.4	1.7	3.5	1.5	10.8	9.0		0.6	5.4
727+27 – 728+50	5.5AVE	123.0			75.2	2.6	3.7	7.4	27.3	10.6	69.1	75.2		2.9	38.3
728+50 – 731+50	8	300.0			266.7	9.3	13.0	18.0	93.0	35.2	217.1	266.7		7.2	126.7
EASTBOUND															
731+50 – 733+97.69 Bk.	8	247.69			220.2	7.6	10.7	14.9	76.8	29.1	179.3	220.2		5.9	104.6
550+00 Ah. – 553+00	8	300.0			266.7	9.3	13.0	18.0	93.0	35.2	217.1	266.7		7.2	126.7
SUBTOTAL (CARRIED TO SHEET 86)						1,227.4	1,718.2	2,739.8	12,119.3	4,635.0	29,158.1	34,270.4	112.2	1,071.2	16,686.9

SHOULDER DATA

STATION TO STATION ℄ SURVEY I-70	EXISTING LT. SIDE W.B. FEET	EXISTING LT. SIDE LIN. FEET	EXISTING RT. SIDE W.B. FEET	EXISTING RT. SIDE LIN. FEET	408 Bit. Prime Coat @ 0.4 Gal./S.Y. GAL.	AREA SQ. YDS.	846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 1 1/4" CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 1 3/4" CU.YD.	617 COMPACTED AGGREGATE TYPE A (4" THICK.) CU.YD.	301 BITUMINOUS AGGREGATE BASE 11 1/2" CU.YD.	304 AGGREGATE BASE, AS PER PLAN 4" CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT AS PER PLAN GAL'S	203 EMBANKMENT CU.YD.
WESTBOUND															
515+00 – 733+97.69 Bk.			4	21,897.69	5352.8	9,732.3	337.9	473.1	1,317.9	3,683.4	1,486.9	10,171.6	9,732.3		523.8
550+00 Ah. – 553+00			4	300.0	73.3	133.3	4.6	6.5	18.0	50.5	20.4	139.3	133.3		7.2
515+00 – 696+00	10	18,100.0			9251.1	20,111.1	698.3	977.6	1,089.4	6,899.2	2,569.8	15,446.4	20,111.1		432.9
696+00 – 696+96	9AVE	96.0			44.8	96.0	3.3	4.7	5.8	33.2	12.4	75.7	96.0		2.3
696+96 – 708+00	8	1,104.0			466.1	981.3	34.1	47.7	66.4	342.5	129.5	799.1	981.3		26.4
N.W. RAMP															
708+00 – 709+47.12	8	147.12			62.1	130.8	4.5	6.4	8.9	45.7	17.3	106.5	130.8		3.5
709+47.12 – 710+72.12	5.5AVE	125.0			38.9	76.4	2.7	3.7	7.5	27.7	10.8	70.2	76.4		3.0
710+72.12 – 711+50	3	77.88			15.6	26.0	0.9	1.3	4.7	10.3	4.3	31.1	26.0		1.9
711+50 – 719+35.30	3	785.3				261.8	9.1	12.7	12.1					26.2	
719+35.30 – 719+83.73	3	52				17.3	0.6	0.8	0.8					1.7	
719+83.73 – 720+13.73	3	88				29.3	0.5	0.7	1.4					2.9	
710+62 – 711+50			3	88.0	17.6	29.3	1.0	1.4	5.3	11.7	4.9	35.2	29.3		2.1
711+50 – 718+95.5			3	745.5		248.5	8.6	12.1	11.5					24.9	
718+95.5 – 719+83.73			3	77.0		25.7	0.9	1.2	1.2					2.6	
719+83.73 – 720+13.73			3	33.0		11.0	0.2	0.3	0.5					1.1	
WESTBOUND															
710+60.5 – 728+17	10	6,756.5			3453.3	7,507.2	260.7	364.9	406.7	2,575.4	959.3	5,766.0	7,507.2		161.6
N.E. RAMP															
718–89.1 – 719+19.1			3	43		14.3	0.2	0.3	0.7					1.4	
719+19.1 – 719+72.68			3	37		12.3	0.4	0.6	0.6					1.2	
719+72.68 – 726+94			3	721.32		240.4	8.3	11.7	11.1					24.0	
726+94 – 728+19.68			3	125.68	25.3	41.9	1.5	2.1	7.6	16.8	7.0	50.6	41.9		3.0
718+89.1 – 719+19.1	3	93				31.0	0.5	0.8	1.4					3.1	
719–19.1 – 719+35.44	3	17				5.7	0.2	0.3	0.3					0.6	
719–35.44 – 726+94	3	758.56				252.9	8.8	12.3	11.7					25.3	
726+94 – 728+19.68	5.5AVE	125.68			39.4	76.8	2.7	3.8	7.6	28.1	10.9	71.2	76.8		3.0
728–20.68 – 732+80.69	8	460.01			194.2	408.9	14.2	19.9	27.7	142.7	54.0	332.9	408.9		11.0
WESTBOUND															
732+80.69 – 733+97.69 Bk.	8	117.0			49.4	104.0	3.6	5.1	7.0	36.3	13.7	84.6	104.0		2.8
550+00 Ah. – 551+23	8	123.0			51.9	109.3	3.8	5.3	7.4	38.2	14.4	89.0	109.3		2.9
551+23 – 552+23	9AVE	100.0			46.7	100.0	3.5	4.9	6.1	34.6	13.0	78.9	100.0		2.4
552+23 – 553+00	10	77			39.4	85.6	3.0	4.2	4.7	29.4	10.9	65.7	85.6		1.8
SUBTOTAL (CARRIED TO SHEET 86)					19221.9		1,418.6	1,986.4	3,052.0	14,005.7	5,339.5	33,414.0	39,750.2	115.0	1,191.6

PAVEMENT AND SHOULDER SUB-SUMMARY

CALC. BY DW DATE 2-29-88 CHKD. BY RM DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

FHWA REGION	STATE	PROJECT	
5	OHIO		

86
126

CARRIED FROM SHEET		846 ASPH.CONC. SURFACE COURSE, TYPE 1 AC-20 CU.YD.	846 ASPH.CONC. INTERMEDIATE COURSE, TYPE 2 AC-20 CU.YD.	617 COMPACTED AGGREGATE TYPE A CU.YD.	407 TACK COAT AS PER PLAN GAL'S	304 AGGREGATE BASE, AS PER PLAN CU.YD.	301 BITUMINOUS AGGREGATE BASE CU.YD.	203 EXCAVATION CU.YD.	203 SUBGRADE COMPACTION SQ.YD.	203 EMBANKMENT CU.YD.	202 PAVEMENT REMOVED (INCLUDING ASPHALT SURFACE)	202 WEARING COURSE REMOVED SQ.YD.	408 BITUMINOUS PRIME COAT GAL./S.Y. GAL.
79 (PAVEMENT TABLE LT.)		1672.0	2310.8		729.1	4534.0	13034.9	11132.7	40805.0		40014.1	505.6	16,322.0
79 (PAVEMENT TABLE RT.)		1476.8	2045.9		390.4	4203.6	12232.0	10472.5	38576.9		37034.8	372.6	15,484.9
80 (PAVEMENT TABLE LT.)		2660.2	3716.3		351.2	8130.0	23374.2	19555.0	73171.2		72394.2	133.4	29,268.6
80 (PAVEMENT TABLE RT.)		2699.4	3768.5		359.1	8140.9	23575.1	19905.3	73267.4		72491.1	133.4	29,307.1
81 (PAVEMENT TABLE LT.)		2308.6	3232.0		312.4	7074.4	20339.1	16999.2	63670.1		63036.6		25,468.1
81 (PAVEMENT TABLE RT.)		2360.9	3305.5		334.9	7096.1	20571.5	17319.8	63865.5		63438.1		25,546.2
84 (SHOULDER TABLE LT.)		2282.6	3196.3	3138.8	77.0	5309.2	13877.1	33420.5	65011.1	1228.2			19,124.2
84 (SHOULDER TABLE RT.)		1402.8	1963.8	3175.5	94.7	5346.8	13967.6	33689.1	39453.2	1244.0			19,248.6
82 (SHOULDER TABLE LT.)		383.9	537.3	1004.6	206.1	1282.8	3274.3	8389.0	8994.0	366.2			4,618.2
82 (SHOULDER TABLE RT.)		285.4	433.6	469.7	20.8	1031.9	2760.3	6243.6	8012.9	182.9			3,714.9
83 (SHOULDER TABLE LT.)		633.0	906.6	1432.1	109.7	2332.9	6085.4	14729.9	17161.8	549.9			8397.3
85 (SHOULDER TABLE LT.)		1227.4	1718.2	2739.8	112.2	4635.0	12119.3	29158.1	34270.4	1071.2			16,685.9
85 (SHOULDER TABLE RT.)		1418.6	1986.4	3052.0	115.0	5339.5	14005.7	33414.0	39750.2	1191.6			19,221.9
79 (PAVEMENT TABLE LT.)	CITY, STATE & FED	500.0	700.0			1600.0	4600.0	3800.0	14400.0		14400.0		5760.0
79 (PAVEMENT TABLE RT.)	CITY, STATE & FED	500.0	700.0			1600.0	4600.0	3800.0	14400.0		14400.0		5760.0
82 (SHOULDER TABLE LT.)	CITY, STATE & FED	194.5	272.2	433.4		755.5	1977.8	4744.5	5600.0	172.2			2720.0
83 (SHOULDER TABLE LT.)	CITY, STATE & FED	194.5	272.2	433.4		755.5	1977.8	4744.5	5600.0	172.2			2720.0
CITY, STATE & FED. TOTALS (CARRIED TO GENERAL SUMMARY)		1389.0	1944.4	866.8		4711.0	13155.6	17089.0	40000	344.4	28800.0		16960.0
STATE & FED. TOTALS (CARRIED TO GENERAL SUMMARY)		20811.6	29121.2	15012.8	3212.6	64457.1	179216.5	254287.5	560097	5834.0	348408.9	1145.0	232407.9

CALC. BY		FAI-70-0.00	OHIO	87
DATE 12-6-98		LIC-70-0.00	FHWA REGION 5	126
CHKD. BY				
DATE 12-6-98				

LANE LINE SUB-SUMMARY

SEE STD.DRAWING TC-72.20

ITEM 847 TRANSVERSE LINES 947.02 (WHITE)	ITEM 847 CHANNELIZING LINES 947.02	ITEM 847 LANE LINE 947.02	STATION	STATION
LIN.FT.	LIN.FT.	MILE	FROM	TO
		0.95	0+00 W.B.	49+90 W.B.
	840		49+90 W.B.	58+30 W.B.
240	750		74+00 W.B.	77+75 W.B.
		0.03	77+75 W.B.	79+35 W.B.
		0.06	471+30 W.B.	474+25 W.B.
	607		474+25 W.B.	480+32 W.B.
225	710		496+20.27 W.B.	499+75 W.B.
		0.03	499+75 W.B.	501+50 W.B.
		0.05	703+75 W.B.	706+50 W.B.
	412		706+50 W.B.	710+62 W.B.
240	766		728+17 W.B.	732+00 W.B.
		0.03	732+00 W.B.	733+60 W.B.
		1.02	0+00 W.B.	54+00 W.B.
705	4085	2.17	SUBTOTALS	
735	4509	29.00	SUBTOTALS CARRIED FROM SHEET 88	
1,440	8594	31.17	TOTALS CARRIED TO GENERAL SUMMARY	

	ITEM 847 STOP LINE 947.02		STATION		
	LIN.FT.				

EDGE LINE SUB-SUMMARY

ITEM 847 EDGE LINES			STATION	STATION
WHITE EDGE LINE 947.02	YELLOW EDGE LINE 947.02			
MILE	MILE		FROM	TO
1.25			0+00 W.B.	65+83 RAMP A SR 256
	0.11		58+30 RAMP A SR 256	64+33 RAMP F SR 256
0.03			62+85 RAMP F SR 256	64+33 RAMP F SR 256
	0.06		62+85 RAMP A SR 256	65+83 RAMP A SR 256
0.45			50+26 W.B.	73+95.21 W.B.
	0.18		64+41 RAMP B SR 256	73+96.21 RAMP B SR256
1.49			64+41 RAMP B SR 256	143+21.06 W.B.
4.27			250+00 W.B.	475+69.44 W.B.
0.26			15+49.67 RAMP A SR256	1+86 RAMP A SR310
	0.20		10+88 RAMP A SR256	0+27.31 RAMP E SR310
0.02			1+45 RAMP E SR 310	0+27.31 RAMP E SR310
	0.04		1+86 RAMP A SR 310	4+00 RAMP A SR310
	0.19		14+49.33 RAMP B SR310	4+53.07 RAMP B SR310
0.27			14+49.33 RAMP B SR310	0+00 RAMP B SR310
4.16			500+75 W.B.	720 + 13.73 NW RAMP SR 158
0.45			472+33 W.B.	496+20.27 W.B.
	0.23		708+00 NW RAMP SR158	720 + 13.73 NW RAMP SR 158
0.33			710+60.5 W.B.	728+17 W.B.
	0.18		718 + 89.1 NE RAMP SR 158	728+19 NE RMP. SR158
0.29			718 + 89.1 NE RAMP SR 158	733+97.69 W.B.
0.27			550+00	564+37.19 W.B.
13.54 W.B.	1.19		SUBTOTALS	
15.45 E.B.	27.35		SUBTOTALS CARRIED FROM SHEET 88	
57.53			TOTALS CARRIED TO GENERAL SUMMARY	

ITEM 621 EDGE LINES					
4" WHITE EDGE LINE	4" YELLOW EDGE LINE				
MILE	MILE		FROM	TO	

ITEM 614 TEMPORARY PAVEMENT MARKINGS

SEE STD.DRAWING MT-99.10

PHASE 1-A & 1-B E.B.				
STA. 600+50 - STA. 604+99			449'	
STA. 586+50 - STA. 607+40			2090'	
STA. 600+50 - STA. 607+25		0.13		
STA. 00+00 - STA. 7+32.40				0.14
STA. 639+00 - STA. 641+21				0.04
STA. 251+54.42 - STA. 253+75.42				0.04
STA. 0+00 - STA. 8+49.16				0.16
STA. 604+99 - STA. 631+72.09		0.51		
STA. 0+00 - STA.7+32.40		0.14		
STA. 639+00 - STA. 641+09.49		0.04		
STA.0+00 -STA. 143+21.06		2.71		
STA. 250+00 - STA.253+75.42		0.07		
STA. 0+00 - STA. 8+49.16		0.16		
STA. 607+40 - STA. 637+00				0.56
STA. 0+00 - STA. 67+00 +200'		1.31		
PHASE 1-A & 1-B W.B.				
STA. 634+40 - STA. 641+21				0.13
STA. 251+54.42 - STA. 269+97.6				0.35
NEW CONSTRUCTION W.B.				
STA. 634+40 - STA. 641+09.49	0.13			
STA. 0+00 - STA. 143+21.06	2.71	2.71		2.71
STA. 250+00 - STA. 258+50	0.16	0.16		0.16
STA. 258+50 - STA.262+17.60	0.07			
STA. 0+00 - STA. 54+00	1.02			
RAMPS W.B.		0.35		0.35
PHASE 2-A & 2-B E.B.				
STA. 623+92.09 - STA. 641+00 +21'				0.33
STA. 251+54.42 - STA. 258+35.42				0.13
STA. 586+50 - STA. 641+09.49	1.03			
STA. 0+00 - STA. 66+75	1.26			
STA. 600+50 - STA. 605+00		0.09		
STA. 605+00 - STA. 607+75	0.05			
STA. 0+00 - STA. 143+21.06		2.71		
STA. 250+00 - STA. 258+50		0.16		
E.B. RAMPS		0.77		0.77
2-A & 2-B W.B				
STA. 0+00 - STA. 7+32.40				0.14
STA. 639+00 - STA. 641+21				0.04
STA. 251+75.42-STA. 253+75.42 +21'				0.04
STA. 0+00 - STA. 8+49.16				0.16
STA. 0+00 - STA. 7+32.40		0.14		
STA. 639+00 - STA. 641+09.49		0.04		
STA. 0+00 - STA. 143+21.06		2.71		
STA. 250+00 - STA. 253+75.42		0.07		
STA. 0+00 - STA. 8+49.16		0.16		
STA. 262+17.60 - STA. 298+47.6		0.69		
E.B. STA. 0+00-STA. 57+00 +200'		1.12		
STA. 631+72.09-STA. 641+09.49	0.18			0.18
STA. 0+00 - STA. 143+21.06	2.71			2.71
STA. 250+00 - STA. 258+50	0.16			0.16
STA.0+00-STA.143+21.06(846TYPE 1)	2.71	2.71		2.71
STA.250+00-STA.258+50(846TYPE 1)	0.16	0.16		0.16
E.B. RAMPS		0.77		0.77
TOTALS (CARRIED TO SHEET 88)	12.35	20.59	2539	12.94
	ITEM 614 TEMP. LANE LINE CLASS II MILE	ITEM 614 TEMP. EDGE LINE CLASS I (WHITE) MILE	ITEM 614 TEMP. CHAN. LINE CLASS I LIN. FT.	ITEM 614 TEMP. EDGE LINE CLASS I (YELLOW) MILE

CALC'D BY	DATE	CHK'D BY	DATE	FAI-70-0.00 LIC-70-0.00	OHIO FHWA REGION 5	88 126

LANE LINE SUB-SUMMARY

SEE STD.DRAWING TC-72.20

ITEM 847 TRANSVERSE LINES 947.02 (WHITE)	ITEM 847 CHANNELIZING LINES 947.02	ITEM 847 4" LANE LINE 947.02	STATION	STATION
LIN.FT.	LIN.FT.	MILE	FROM	TO
		0.03	49+37 E.B.	51+00 E.B.
240	750		51+00 E.B.	54+75 E.B.
		0.02	63+50 E.B.	64+74 E.B.
130	400		64+75 E.B.	66+75 E.B.
	620		76+05 E.B.	82+25 E.B.
		.05	82+25 E.B.	85+00 E.B.
		0.05	475+00 E.B.	477+50 E.B.
130	410		477+50 E.B.	479+55 E.B.
	614		495+36 E.B.	501+50 E.B.
		.05	501+50 E.B.	504+24 E.B.
		0.03	706+73 E.B.	708+40 E.B.
235	740		708+40 E.B.	712+10 E.B.
	525		727+75 E.B.	733+00 E.B.
		0.02	733+00 E.B.	733 +97.69 B=
		0.03	550+00 A	551+70.31 E.B.
		2.07	586+50 E.B.	641+09.49 E.B.
		1.26	0+00 E.B.	66+75 E.B.
		5.42	0+00 E.B & W.B.	143+21.06 E.B. W.B.
		18.33	250+00 E.B. & W.B.	733+97.69 E.B. & W.B.
		0.11	550+00 E.B. & W.B.	553+00 E.B. & W.B.
		0.22	553+00 E.B. -	564+37.19 E.B.
		0.36	631+72.09 W.B.	641+09.49 W.B.
		0.90	553+00 W.B.	600+67.19 W.B.
	450		600+50 E.B.	605+00 E.B.
		0.05	605+00 E.B.	607+75 E.B.
735	4509	29.00	SUB-TOTALS CARRIED TO SHEET 87	

ITEM 847 STOP LINE 947.02	ITEM 847 LANE ARROW 947.02 (THRU)	STATION
LIN.FT.	EACH	
36		64+52 RMP B SR256
	1	65+02 RMP B SR256
35		14+32 RMP B SR310
	1	13+82 RMP B SR310
50		14+25 RMP D SR310
	1	13+75 RMP D SR310
50		721+10 SW-RMP SR158
	1	720+60 SW-RMP SR158
50		719+10 NE-RMP SR158
	1	719+60 NE-RMP SR158
221	5	TOTALS (CARRIED TO GENERAL SUMMMARY)

EDGE LINE SUB-SUMMARY

ITEM 847 EDGE LINES				
4" WHITE EDGE LINE 947.02	4" YELLOW EDGE LINE 947.02		STATION	STATION
MILE	MILE		FROM	TO
	0.36		631+72.09 E.B. & W.B.	641+09 E.B. & W.B.
	5.42		0+00 E.B. & W.B.	143+21.06 E.B. & W.B.
	18.33		250+00 E.B. & W.B.	733+97.69 E.B. & W.B.
	0.11		550+00 E.B. & W.B.	553+00 E.B. & W.B.
	0.43		553+00 E.B. & W.B.	564+37.19 E.B. & W.B.
0.95			0+00 E.B.	50+20.27 E.B.
0.27			50+20.99 RMP E SR256	64+64.06 RMP E SR256
0.38			60+52.33 RMP C SR256	80+74.74 RMP C SR256
	0.29		60+52.33 RMP C SR256	76+05 RMP C SR256
1.18			80+75 E.B.	143+21.06 E.B.
4.26			250+00 E.B.	475+00 E.B.
0.27			0+00 RAMP D SR310	14+37.13 RMP D SR310
0.22			0+28.10 RAMP C SR310	12+02.02 RMP C SR310
4.19			500+00 E.B.	721+29 SW-RMP SR158
0.28			719+41.6 SE-RMP SR158	733+97.69 E.B.
0.27			550+00 E.B.	564+37.19 E.B.
0.52			54+75 E.B.	82+00.18 RMP D SR256
	0.19		54+74.06 RAMP E SR256	64+64.06 RMP E SR256
	0.29		66+75 RAMP D SR256	82+00.18 RMP D SR256
0.29			66+75 E.B.	82+25 E.B.
0.42			479+55 E.B.	501+50 E.B.
	.0.19		4+53 RAMP D SR310	141+37.13 RMP D SR310
	0.13		0+28.10 SW-RMP SR158	7+40 RMP C SR310
0.40			712+10 E.B.	733+00 E.B.
	0.17		712+10 SW-RMP SR158	721+29 E.B.
	0.16		719+41.6 SE-RMP SR158	727+75 E.B.
0.18			631+72.09 W.B.	641+09.49 W.B.
0.69	0.69		564+37.19 W.B.	600+67.19 W.B.

ITEM 847 EDGE LINES				
4" WHITE EDGE LINE 947.02	4" YELLOW EDGE LINE 947.02		STATION	STATION
MILE	MILE		FROM	TO
0.09			600+50 E.B.	605+00 E.B.
0.59	0.59		600+50 E.B.	631+72.09 E.B.
15.45	27.35		SUB TOTALS CARRIED TO SHEET 87	

ITEM 614 TEMPORARY PAVEMENT MARKINGS

SEE STD.DRAWING MT-99.10

	614 Temp. Chan. Line CLASS I LIN. FT.	614 Temp. Edge Line Class I (yellow) MILE	614 Temp. Edge Line Class I (white) MILE	614 Temp. Lane Line Class II MILE
PHASE 3 E.B.				
0+00 - 8+49.16		.16		
262+17.60 - 264+38.60		.04		
508+04 - 510+25.42		.04		
0+00 - 8+49.16		.16		
110+66.48 - 143+21.06 & 250+00 - 253+75.42			.69	
0+00 - 8+49.16			.16	
262+17.60 - 510+25.42			4.70	
0+00 - 8+49.16			.16	
PHASE 3 W.B.				
257+57.60 - 264+38.6		.13		
508+04 - 526+47.6		.35		
W.B. (NEW CONSTRUCTION)				
257+57.60 - 518+67.60		4.95	4.95	4.95
W.B. RAMPS		.39	.39	
PHASE 4 E.B.				
245+95.42 - 264+38.60		.35		
508+04.42 - 514+85.42		.13		
258+50 - 515+00			4.86	
E.B. RAMPS		.32	.32	
PHASE 4 W.B.				
0+00 - 8+49.16		.16		
262+17.60 - 264+38.6		.04		
508+04.42 - 510+25.42		.04		
0+00 - 8+49.16		.16		
0+00 - 8+49.16			.16	
262+17.60 - 510+25.42			4.70	
0+00 - 8+49.16			.16	
518+67.60 - 554+97.60			.69	
258+50 - 515+00		4.86		4.86
258+50 - 515+00 (846 TYPE 1) E.B.		4.86	4.86	4.86
E.B. RAMPS		.32	.32	
PHASE 5 E.B.				
0+00 - 8+49.16		.16		
518+67.60 - 520+88.6		.04		
555+41.81 - 557+62.81		.04		
0+00 - 6+77.92		.13		
473+95.42 - 510+25.42			.69	
0+00 - 8+49.16			.16	
518+67.68 - 733+97.69			4.08	
550+00 - 557+62.81			.14	
0+00 - 6+77.92			.13	
PHASE 5 W.B.				
514+07.60 - 520+88.60		.13		
555+41.81 - 572+17.19		.32		
W.B. (NEW CONSTRUCTION)				
514+07.60 - 733+97.69		4.16	4.16	4.16
550+00 - 564+37.19		.27	.27	.27
W.B. RAMPS		.41	.41	
PHASE 6 E.B.				
502+45.42 - 520+88.7		.35		
555+41.81 - 562+22.81		.13		
515+00 - 733+97.69			4.15	
550+00 - 553+00			.06	
E.B. RAMPS		.33	.33	
PHASE 6 W.B.				
0+00 - 8+49.16		.16		
518+67.70 - 520+88.7		.04		
555+41.81 - 557+62.81		.04		
0+00 - 6+77.92		.13		
0+00 - 8+49.16			.16	
518+67.70 - 733+97.69			4.08	
550+00 - 557+62.81			.14	
0+00 - 6+77.92			.13	
564+37.19 - 600+67.19			.69	
515+00 - 733+97.69		4.15		4.15
550+00 - 562+22.81		.23		.23
515+00 - 733+97.69 E.B.		4.15	4.15	4.15
550+00 - 553+00 E.B.		.06	.06	.06
E.B. RAMPS		.33	.33	
E.B. ACCELERATION (.33 x 2) (1759 x 2)	3518		.66	
W.B. ACCELERATION (.31) (1624)	1624		.31	
SUBTOTALS THIS SHEET	5142	33.22	52.41	27.69
SUBTOTALS FROM SHEET 87	2539	12.94	20.59	12.35
TOTAL (Chan. Line carried below) 7681			119.16	40.04

TOTALS CARRIED TO GENERAL SUMMARY

DECELERATION		ITEM 614 TEMPORARY		
ITEM 614 TEMP CHAN LINE, CLASS I	E.B	W.B.	STOP LINES, CLASS I	E.B. W.B.
PHASE 1-A & 1-B	2300 L.F.		PHASE 2A & 2B	36
PHASE 2-A & 2-B	750 L.F.		PHASE 4	100 35
PHASE 3	820 L.F.		PHASE 6	100 50
PHASE 4	710 L.F.			200 L.F. 121 L.F.
PHASE 5	1480 L.F.			
PHASE 6	766 L.F.			
TOTALS	6826 L.F. + 7681 L.F. = 14,507 L.F.			321

CALC. BY RJL
DATE 3/3/88
CHKD. BY Rm
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI-70-0.00
LIC-70-0.00

NOTE: For 605 Underdrain Typical Section See Sheet. 7.
NOTE: For Typical Underdrain Details See Sheet 90.

DRAINAGE SUMMARY

CITY-STATE-FEDERAL
STATE-FEDERAL

STATION		605 6" UNCLASSIFIED PIPE UNDER DRAINS AS PER PLAN LIN.FT.		605 6" SHALLOW PIPE UNDER DRAINS AS PER PLAN LIN.FT.		605 6" DEEP PIPE UNDER DRAINS AS PER PLAN LIN.FT.		604 CATCH BASINS RECONSTRUCTED TO GRADE AS PER PLAN EACH		604 CATCH BASIN RECONSTUCTED TO GRADE EACH		603 6" CONDUIT TYPE E 707.19 LIN.FT.		603 8" CONDUIT TYPE F LIN.FT.		603 6" CONDUIT TYPE B 707.17 or ASTM D-3034 LIN.FT.	603 48" CONDUIT TYPE A 707.05 (0.138") LIN. FT.	604 Nº 2-6 CATCH BASIN AS PER PLAN EACH	604 NO.3 MANHOLE WITH FLAT SLAB TOP USING HEAVY DUTY FRAME AND COVER EACH	202 PIPE REMOVED 24" & UNDER LIN. FT.	BENDS AND BRANCHES									DETAILS ON SHEET	602 CONCRETE MASONRY CU. YD.	601 ROCK CHANNEL PROTECTION TYPE B WITH FILTER CU. YD.	601 ROCK CHANNEL PROTECTION TYPE C WITH FILTER CU. YD.	601 ROCK CHANNEL PROTECTION TYPE D WITH FILTER AS PER PLAN CU. YD.	601 RIPRAP USING 6" REINFORCED CONCRETE SLAB SQ. YD.
																					6"x6" WYE		6" X 6" CROSS	6" X 6" TEE		6" X 45°		6" X 90°							
		C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	C-S-F	S-F	S-F	S.F	S.F	S-F	S-F	C-S-F	S-F		C-S-F	S-F	C-S-F	S-F	C-S-F	S-F		S-F	S-F	S-F	S-F	S-F
0+00 - 16+00		498		2723		2212		2				187		30							4			2		2		5		91					
16+00 - 31+00		1835		3560		600						24		10														1		91					
31+00 - 46+00		150	220	1768	3180			1	1		2	79	179	10	50									1	5	1	1	2	5	91					
46+00 - 61+00			200		5585				1				96		20					90					3		1		3	92					
61+00 - 76+00			665		3234		1290		1		1		90		20				1						2		1		2	92			175		
76+00 - 91+00			1777		2934		1185		1				196		40										3		2		4	92					
91+00 - 106+00			150		5094		750		1				98		10	40									3		1		2	93					
106+00 - 121+00			150		2985		2830		1				120		10	40									3		1		2	93					
121+00 - 136+00			200		5760				1				133		20										1		1		3	93					
136+00 - 258+00					5910				1				150		20										2		2		2	94					
258+00 - 273+00			50		5143				1				142		40										1		1		5	94					
273+00 - 288+00			318		5447				2		1		362		60										3		3		7	94					
288+00 - 303+00			150		5810				1				108		10	40									3		1		2	95					
303+00 - 317+00			150		5555				1				108		10	40									3		1		2	95					
317+00 - 331+00					5430				1				123		20												1		3	95					
331+00 - 346+00					4400		1600																							96					
346+00 - 361+00			2900		2955				2				321		70										4		3		7	96					
361+00 - 376+00			800		4916		186		2				286		20	80									4		2		4	96					
376+00 - 391+00			1200		4065		700		1				133		20												1		3	97					
391+00 - 406+00					5961				1				167		20												1		3	97					
406+00 - 421+00					5828				1				216		30	40									3		1		4	97					
421+00 - 436+00			2757		2813		363		2				403		30	80							2		4		2		4	98					
436+00 - 451+00			1300		4840				1				128		20												1		3	98					
451+00 - 466+00			5980						1				74			80									4				2	98					
466+00 - 481+00			5791						3				222		30										3		2		3	99					
481+00 - 496+00			5824						1				258		50										1		1		6	99					
496+00 - 511+00			4107		1730				2				96		20										1		1		3	99					
511+00 - 526+00			3845		1945				4				241		30										4		2		3	100					
526+00 - 541+00			3768		2068				3				355		80										4		2		7	100					
541+00 - 556+00			612		3895		1272		2				252		20	40							1		3		3		3	100					
556+00 - 571+00			200		3405		2325		1				200		30										2		2		2	101					
571+00 - 586+00			1600		2200		2200																							101					
586+00 - 601+00			1525		3065		1335		3				360		50										6		2		5	101					
601+00 - 616+00			2040		3380		500																							102					
616+00 - 631+00			100		3870		1976		1				130		20												1		3	102					
631+00 - 646+00			900		3505		1521		3				204		20	80									4		1		4	102					
646+00 - 661+00			400		3336		2231		1				159		10	40									2		1		2	103					
661+00 - 676+00			350		4374		850		2				204		20												2		4	103					
676+00 - 691+00			400		2790		2790		1				74			80									4				2	103					
691+00 - 706+00			617		4356		885		2				242		40							1			1		2		5	104					
706+00 - 721+00			2264		2715		870		3				210		20	66						6					4			104					
721+00 - 552+00			3041		2268		600		3				121			39				109		2	2		1		1		1	104					
552+00 - 556+00 91+00-100+00			452										47		50												3		2	105			274	121	
97+75																	252	1												105A	1.1	28		56	91
TOTAL - CITY-STATE-FEDERAL		2483		8051		2812		3				290		50							4			3	87	3		8							
TOTAL - STATE-FEDERAL			56803		146747		28259		60		4		7008		1030	785	252	1	1	199		9	5				58		127		1.1	28	449	177	91

Quantities carried to General Summary, sheet no. 48

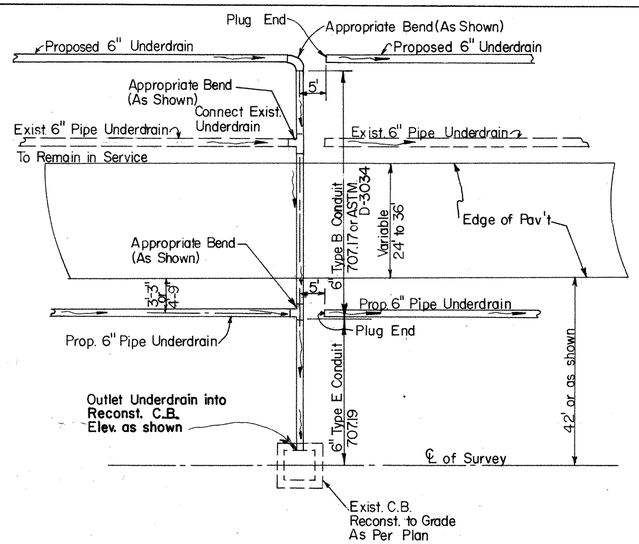
TYPICAL UNDERDRAIN DETAIL

CALC. BY RDL
DATE 3/4/88
CHECK. BY RM
DATE 3-5-88

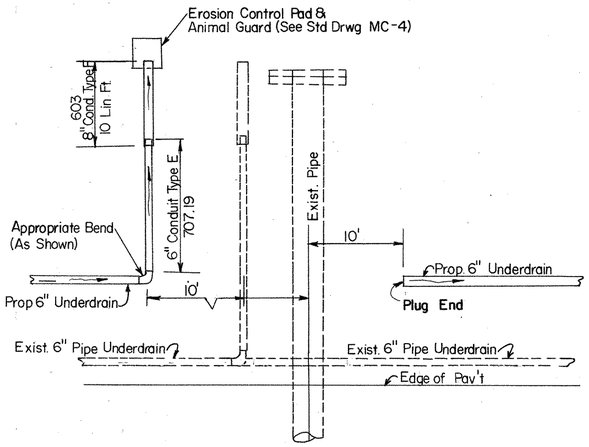
FHWA REGION	STATE	PROJECT	
5	OHIO		

90
126

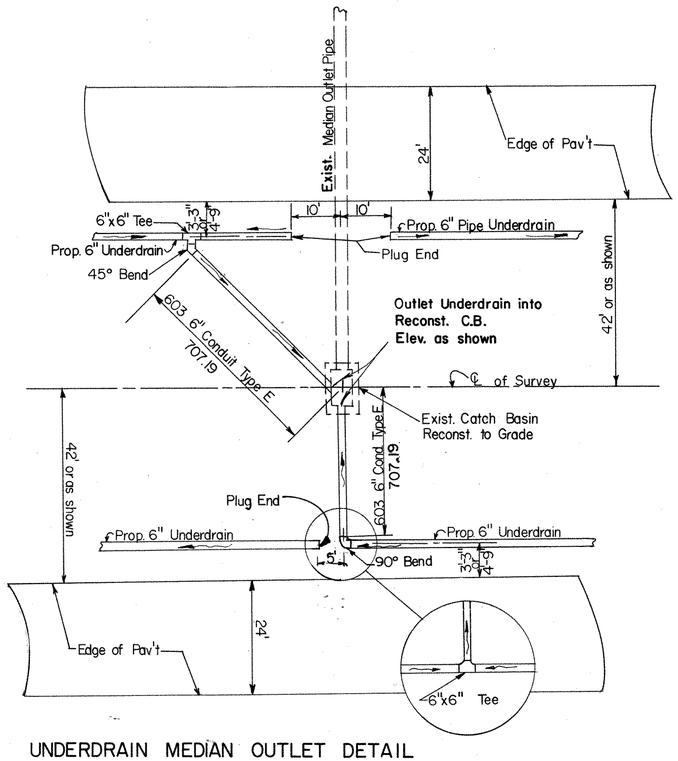
FAI-70-0.00
LIC-70-0.00



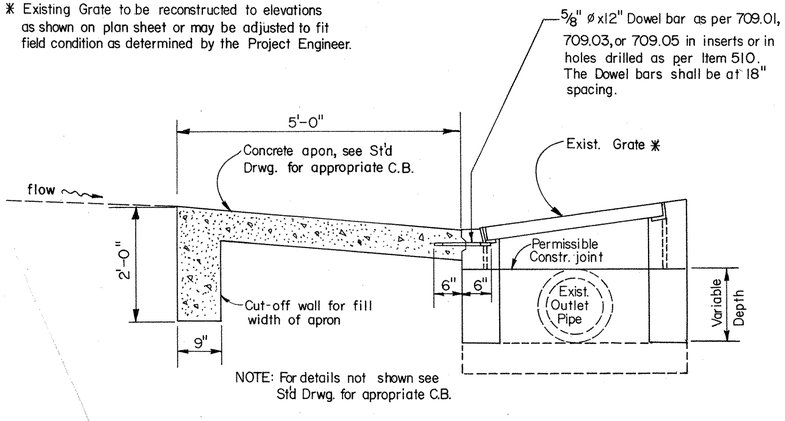
UNDERDRAIN OUTLET DETAIL
UNDER PAVEMENT



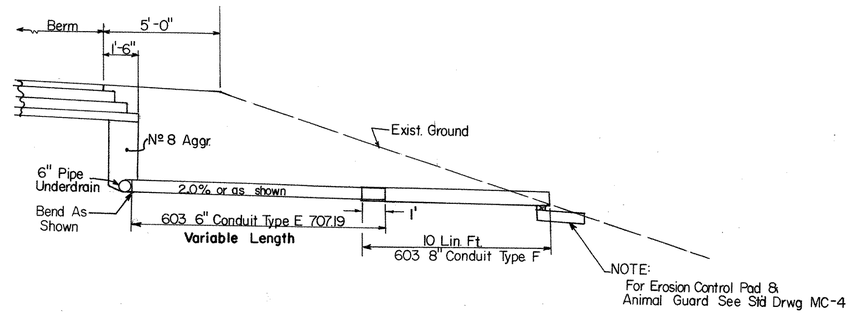
UNDERDRAIN OUTLET DETAIL



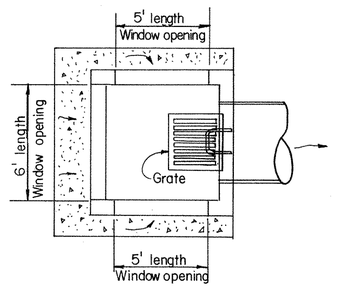
UNDERDRAIN MEDIAN OUTLET DETAIL

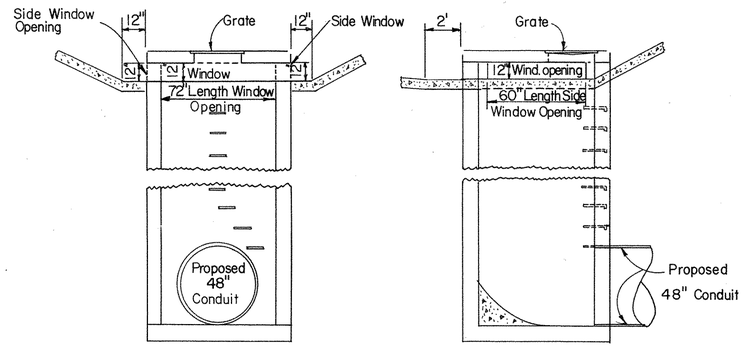


CATCH BASIN RECONSTRUCTED TO GRADE
AS PER PLAN



PIPE UNDERDRAIN OUTLET





Nº. 2-6 CATCH BASIN AS PER PLAN

CALC. BY RGL
DATE 3/3/88
CHECK. BY RM
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

91
126

FAI-70-0.00
LIC-70-0.00

6"x136' Unclass. U.D.
Plug End of unused Branch
6" Wye El. 835.00
El. 835.53
6" Wye (Install into Exist. U.D) El. 834.8±
6"x1195' Deep U.D.
Exist. C.B.(CB-4) Reconst. to Grade Sta. 4+32, 4' Rt. A.P.P. ℄ Sta. 4+32 ℄ El. Grate 844.00 ℄ El. Invert 841.62
6"x68' Unclass. U.D.
El. 842.74
90° Bend El. 841.92
30" Type E
33" Type E
Tee +45° Bend El. 842.06
Outlet into C.B. El. 841.62
El. 842.31
Exist. 6" U.D. Location
6"x845' Shallow U.D.
Exist. C.B.(CB-4) Reconst. to Grade ℄ Sta. 13+50 A.P.P. ℄ El. 85586 ℄ El. Grate 857.65 ℄ El. Invert 855.54
Outlet into C.B. El. 855.60
40" Type E
Tee +45° Bend El. 856.14
El. 856.31
6"x903' Shallow U.D.
6"x245' Shallow U.D.
Exist. 6" U.D.
10' Type E
20' Type E
6"x 240' Shallow U.D.
Exist. 6" U.D.
6"x250' Shallow U.D.
26" Type E
MATCH LINE 16+00
6"x158' Unclass. U.D.
El. 841.6 90° Bend
10' Type F 18' Type E
El. 841.3
El. 842.21
6"x740' Deep U.D.
6"x277' Deep U.D.
6"x240' Shallow U.D.
10' Type F 20' Type E

6"x200' Unclassified U.D.
El. 860.10 ← 0.3%
El. 860.70
6"x300' Unclassified U.D. 1.20% →
El. 857.11
P.C. STA. 25+35.79
6"x600' Deep U.D.
6"x400' Shallow U.D.
Exist. 6" U.D.
El. 860.51 ← 0.3%
Exist. 6" U.D. Location
El. 860.42
El. 861.11
6"x700' Shallow U.D.
MATCH LINE 16+00
MATCH LINE 31+00
El. 861.11 0.39% →
El. 860.33
6"x 565' Shallow U.D.
El. 860.30 ← 0.3%
El. 861.30 0.39% →
El. 860.49
6"x335' Unclassified U.D.
6"x200' Unclassified U.D.
6"x395' Shallow U.D.
10' Type F 24' Type E
30+95

⊕ NOTE:
Existing Underdrain to Remain in Service.

NOTE:
For Quantities See Sheet No. 89

6"x150' Unclassified U.D.
El. 850.98
El. 850.57
6"x160' Shallow U.D.
MATCH LINE 31+00
CITY-STATE-FEDERAL FUNDS
STATE-FEDERAL FUNDS
10' Type F 15' Type E
Exist. C.B (C.B. 4) Reconst. to Grade A.P.P. ℄ Sta. 34+35 ℄ El. Grate 851.02 ℄ El. Invert. 848.64
Sta. 36+00
El. 850.00
6"x155' Shallow U.D.
6"x825' Shallow U.D.
* Note: Transition U.D. from 25'-3" to 26'-9"
PT. STA. 40+24.71
6"x308' Shallow U.D.
6"x335' Shallow U.D.
Tee +45° Bend El. 849.76
Outlet into C.B. El. 849.00
26" Type E
38" Type E
6"x155' Shallow U.D.
Exist. 6" U.D. Location
6"x750' Shallow U.D.
6"x160' Shallow U.D.
90° Bend
6"x595' Shallow U.D.
Exist. 6" U.D. Location
Pt. STA. 32+89.40
6"x 495' Shallow U.D.
6"x 195' Shallow U.D.
10' Type F 15' Type E
6"x620' Shallow U.D.
10' Type F 5' Type E
6"x25' Shallow U.D
El. 832.70
6"x30" Unclass. U.D.
El. 832.45 Tee
Outlet into C.B. El. 832.2
Exist. C.B.(CB-2-2-B) Reconst. to Grade ℄ Sta. 45+91 ℄ El. Grate 834.20 ℄ El. Invert 832.20
Outlet into C.B. El. 834.17
Exist C.B.(CB-4) Reconst. to Grade A.P.P. ℄ Sta. 42+00 ℄ El. Grate 835.94 ℄ El. Invert 833.83
Outlet into C.B. El. 832.0
40" Type E Tee +45° Bend El. 834.20
6"x145' Shallow U.D.
Exist. 6" U.D.
El. 832.46
6"x80' Unclass. U.D.
El. 832.25
El. 832.50
El. 832.46
El. 832.50
Exist C.B.(CB-2-2-B) Reconst. to Grade ℄ Sta. 44+09 ℄ El. Grate 834.20 ℄ El. Invert. 832.00
MATCH LINE 46+00

0+00 - 46+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

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CALC. BY RSP
DATE 3/3/88
CHECK. BY RM
DATE 3-4-88

FAI -70 -0.00
LIC -70 -0.00

MATCH LINE 46+00

MATCH LINE 61+00

MATCH LINE 76+00

MATCH LINE 91+00

Exist. 12" Pipe To Be Removed 90 Lin. Ft.

+75,125 ℄ El. 844.0

10' Type F
5' Type E

90° Bend (El. 844.61)

6"x 325' Shallow U.D.

TS Sta. 56+62.26

RAMP "A"

El. 8538±

6"x 285' Shallow U.D.

6"x6" Tee Install into Exist. U.D.

El. 832.67

6"x 750' Shallow U.D.

6"x75' Unclass. U.D.

6"x 120' Shallow U.D.

90° Bend El. 834.15

Outlet U.D. into Ex. C.B. El. 834.00

26' Type E

40' Type E

Tee +45° Bend El. 834.59

6"x 1300' Shallow U.D.

6"x 1295' Shallow U.D.

Exist. U.D. Location

6"x 190' Shallow U.D.

90°

10' Type F
15' Type E

6"x 652' Shallow U.D.

Exist. C.B. (CB-4) Reconst. to Grade A.P.P. ℄ Sta. 48+00 FL El. Grate 835.94 FL El. Invert 833.83

Sta. 50+20.27 L70= Sta. 50+20.29 Ramp E

NOTE:
An estimated quantity of 175 C.Y. of item 601 Rock Channel Protection Type C with filter has been provided for filling and reshaping of the ditch that has been eroded away. The approximate limits of the fill shall be as dimensioned or as determined by the Project Engineer.

El. 848.0±

6"x6" Tee (Install into Exist. U.D.)

RAMP "E"

6"x 50' Unclass. U.D.

6"x 548' Shallow U.D.

Exist. 12" Pipe

6" Wye Install in Exist. U.D. El. 877.39

6" Wye El. 877.56

6"x 101' Unclass. U.D.

El. 878.31

RAMP "B"

6"x 200' Deep U.D.

Eroded Ditch Area

℄ SR 256

6"x 180' Shallow U.D.

Exist. U.D. Location

6"x 175' Shallow U.D.

6"x 150' Unclassified U.D.

6"x 160' Shallow U.D.

6"x 490' Deep U.D.

El. 870.47

El. 871.37

6"x 1100' Shallow U.D.

Exist. C.B. (C.B.-4) Reconst. to Grade A.P.P. ℄ Sta. 67+50 FL El. Grate 873.40 FL El. Invert 871.02

6"x 60' Unclass. U.D.

El. 868.90

El. 868.72

Tee +45° Bend

50' Type E

Outlet U.D. into C.B. El. 876.70

30' Type E

Tee El. 867.96

6"x 165' Shallow U.D.

Existing U.D. Location

El. 868.25

6"x 31' Unclass. U.D.

Exist. C.B. (CB-22-B) Reconst. to Grade Sta. 65+03 ℄ El. Grade 869.30 FL El. Invert 867.30

Exist. U.D. Location

6"x 1097' Shallow U.D.

El. 874.36

6"x 145' Shallow U.D.

El. 870.75

6"x 323' Unclassified U.D.

6"x 600' Deep U.D.

10' Type F
5' Type E

90° Bend

6"x 212' Shallow U.D.

RAMP "D"

Exist 18"

Install № 3 Manhole with Flat Slab Top Using Heavy Duty Frame & Cover 79' Rt. Sta. 66+77 El. Cover 875.50 FL El. Invert 870.35

⊕NOTE:
Existing Underdrain to Remain in Service

NOTE:
For Quantities See Sheet No. 89

Sta. 78+49.28 ℄ 70= Sta. 78+49.28 Ramp B

6"x 250' Deep U.D.

El. 881.33

6"x 200' Unclassified U.D.

El. 882.23

6"x 250' Unclass. U.D.

El. 881.48

6"x 345' Deep U.D.

Exist. C.B. (CB-4) Reconst. to Grade A.P.P. ℄ Sta. 86+50 FL El. Grate 882.59 FL El. Invert 880.48

10' Type F
21' Type E

10' Type F
15' Type E

6"x 445' Shallow U.D.

6"x 250' Shallow U.D.

El. 883.42

El. 884.10

El. 883.47

6"x 225' Unclassified U.D.

6"x 225' Unclassified U.D.

6"x 350' Shallow U.D.

Outlet U.D. into Exist C.B. El. 881.47

El. 882.33

Tee

39' Type E

6"x 450' Shallow U.D.

6"x 200' Unclassified U.D.

6"x 225' Unclassified U.D.

6"x 275' Shallow U.D.

El. 883.71

Exist. U.D. Location

El. 884.31

El. 883.47

6"x 312' Shallow U.D.

54' Type E

54' Type E

Tee + 45° Bend

(El. 882.50)

Tee + 45° Bend

6"x 412' Shallow U.D.

El. 882.36

6"x 76' Unclass. U.D.

El. 882.36

El. 881.23

6"x 340' Deep U.D.

6"x 440' Shallow U.D.

RAMP "C"

6"x 151' Unclass. U.D.

El. 880.54

6"x 250' Deep U.D

El. 881.48 Back

El. 881.91 Ahead

6"x 225' Unclassified U.D.

10' Type F
8' Type E

10' Type F
5' Type E

6"Wye Install into Exist. U.D. El. 879.56

Plug End

6" Wye (El. 879.73)

* Note: Transition U.D. from 38'-9" to 37'-3"

Sta. 80+75 ℄ 70 = Sta. 80+74.74 Ramp

46+00 - 91+00

CALC. BY RJL
DATE 3-3-88
CHECK. BY RM
DATE 3/4/88

FHWA REGION	STATE	PROJECT	
5	OHIO		

93
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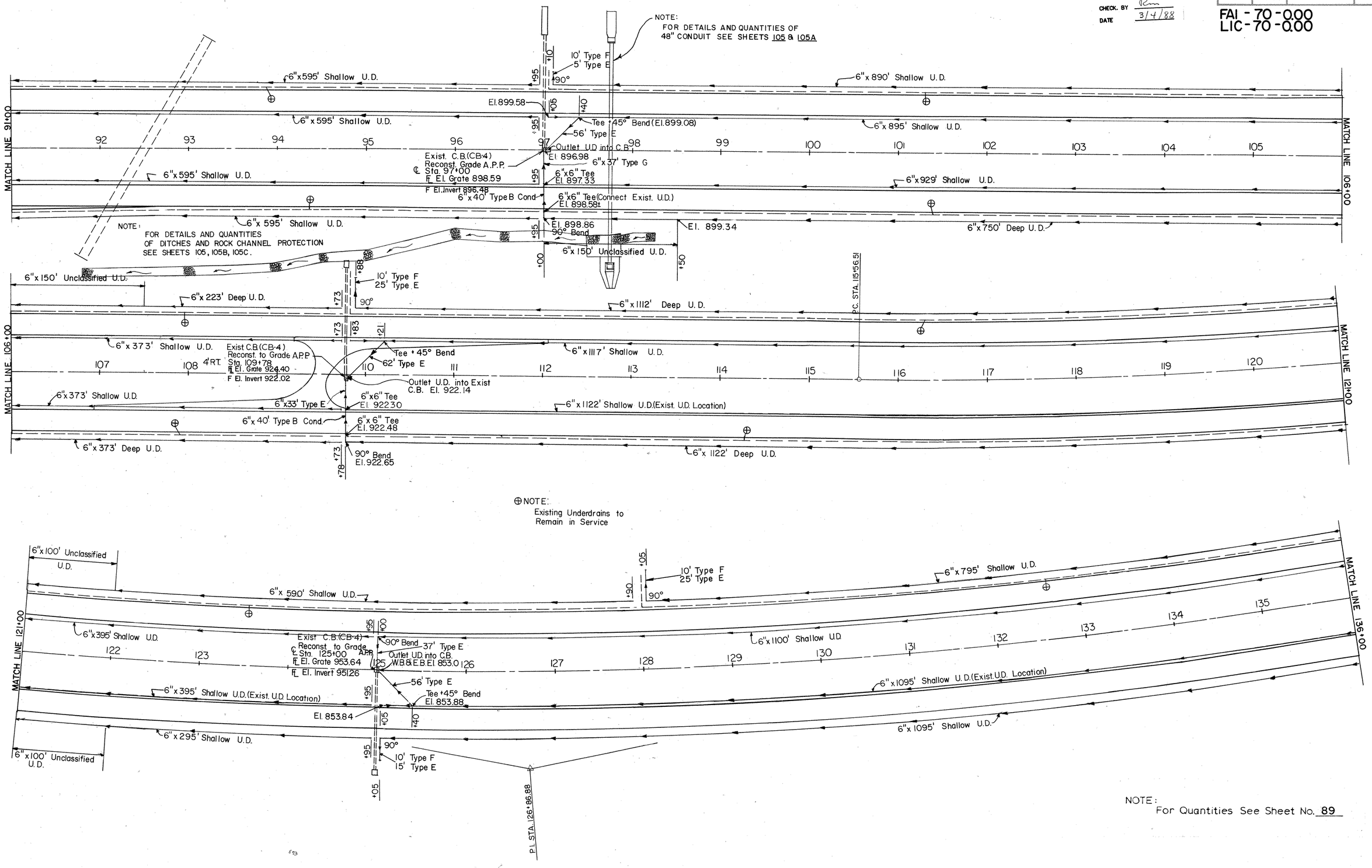
FAI - 70 - 0.00
LIC - 70 - 0.00



91+00 - 136+00

CALC. BY RGP
DATE 3/3/88
CHECK. BY RM
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

94
126

FAI - 70 -0.00
LIC - 70 -0.00

MATCH LINE 136+00

6"x 365" Shallow U.D.

PT. STA. 137+88.59

Exist. C.B.(CB-4)
Reconst. to Grade A.P.P.
℄ Sta. 139+75
F℄ El. Grate 975.85
F℄ El. Invert 972.57

10' Type F
15' Type E

STA. 143+21.06 B.K. =
STA. 250+00 AHD.

6"x 1096' Shallow U.D.

El. 976.25

6"x 365' Shallow U.D.

Outlet U.D. into Exist
C.B. El. 974.00

Tee +45° Bend
El. 976.00

6"x 1136' Shallow U.D.

137 138 139 140 141 142 143 251 252 253 254 255 256 257

55' Type E

El. 976.50

6"x 365' Shallow U.D.

Tee +45° Bend (El. 976.00)

6"x 1136' Shallow U.D.

Exist. U.D. Location

MATCH LINE 258+00

6"x 340' Shallow U.D.

6"x 1107' Shallow U.D.

10' Type F
25' Type E

* Note: Transition U.D.
from 37'-3" to 38'-9"

6"x390' Shallow U.D.

10' Type F
15' Type E

6"x 206' Shallow U.D.

10' Type F
15' Type E

6"x 550' Shallow U.D.

10' Type F
5' Type E

6"x 82' Shallow U.D.

MATCH LINE 258+00

6"x 390' Shallow U.D.

El. 992.56

Tee +45° Bend El. 992.06

6"x 840' Shallow U.D.

El. 1004.50

6"x 50'
Unclassified U.D.

259 260 261 262 263 264 265 266 267 268 269 270 271 272

55' Type E

Outlet U.D. into Exist
C.B. El. 990.57

37' Type E

6"x 395' Shallow U.D.

6"x 940' Shallow U.D.

MATCH LINE 273+00

El. 991.64

6"x 620' Shallow U.D.

Exist. C.B.(CB-4)
Reconst. to Grade A.P.P.
℄ Sta. 262+00
F℄ El. Grate 991.93
F℄ El. Invert 989.82

10' Type F
15' Type E

6"x 730' Shallow U.D.

⊕ NOTE:
Existing Underdrain to
Remain in Service

** NOTE: Transition U.D.
from 38'-9" to 37'-3"

El. 1004.00

10' Type F
26' Type E

6"x 38' Shallow U.D.

10' Type F
6' Type E

6"x 232' Unclassified U.D.

6"x 382' Shallow U.D.

10' Type F
15' Type E

6"x 567' Shallow U.D.

10' Type F
15' Type E

6"x 195' Shallow U.D.

6"x 86'
U.D.

Unclassified El. 1004.25

El. 1005.70

El. 1006.11

6" Tee(El.1010.30)Connect Exist. U.D

Exist El.1010.60

To Be Abandoned

El. 1017.52

(Exist U.D.
6"x 190' Shallow U.D. Location)

59' Type E

Tee +45° Bend
El. 1004.00

6"x 249' Shallow U.D.

45° Bend

55' Type E

6"x 950' Shallow U.D.

Exist. U.D. Location

Abandon

Tee +45° Bend El. 1017.02

55' Type E

MATCH LINE 273+00

274 275 276 277 278 279 280 281 282 283 284 285 286 287

32' Type E

Outlet U.D. into Exist
C.B. El. 1003.18

Outlet U.D. into Exist
C.B. El. 1005.13

37' Type E

Outlet U.D. into C.B.
El. 1016.00

90° Bend

6"x 200' Shallow U.D.

6"x 251' Shallow U.D.

El. 1003.60

El. 1006.20

6"x 995' Shallow U.D.

10' Type F
5' Type E

6"x 755' Shallow U.D.

90° (El.1011.66)

10' Type F
20' Type E

6"x 675' Shallow U.D.

PC. STA. 284+91.79

Exist. C.B.(No 2-2B)
Reconst. to Grade
Sta. 273+44.5' Rt
F℄ El. Grate 1004.41
F El. Invert 1002.43

Exist. C.B.(CB-4)
Reconst. to Grade A.P.P.
℄ Sta. 276+00
F℄ El. Grate 1006.49
F℄ El. Invert 1004.38

Exist. C.B.(CB-4)
Reconst. to Grade A.P.P.
℄ Sta. 286+00
F℄ El. Grate 1016.89
F El. Invert 1014.51

NOTE:
For Quantities See Sheet No. 89

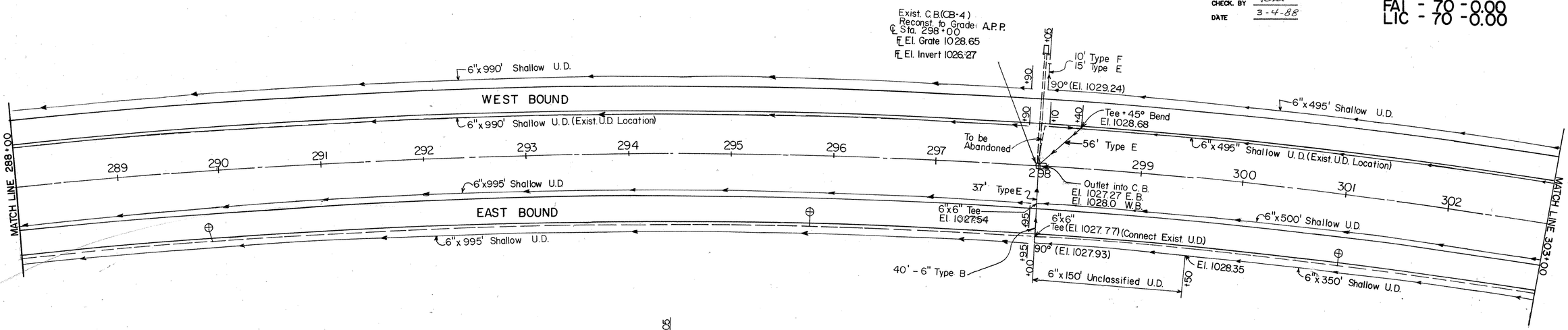
136+00 - 288+00

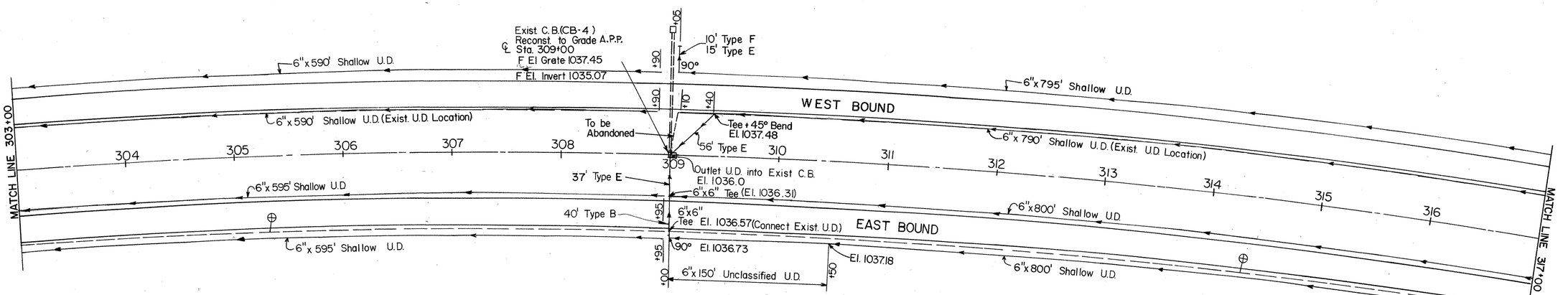
CALC. BY	RJL
DATE	3/3/88
CHECK. BY	RM
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

95
126

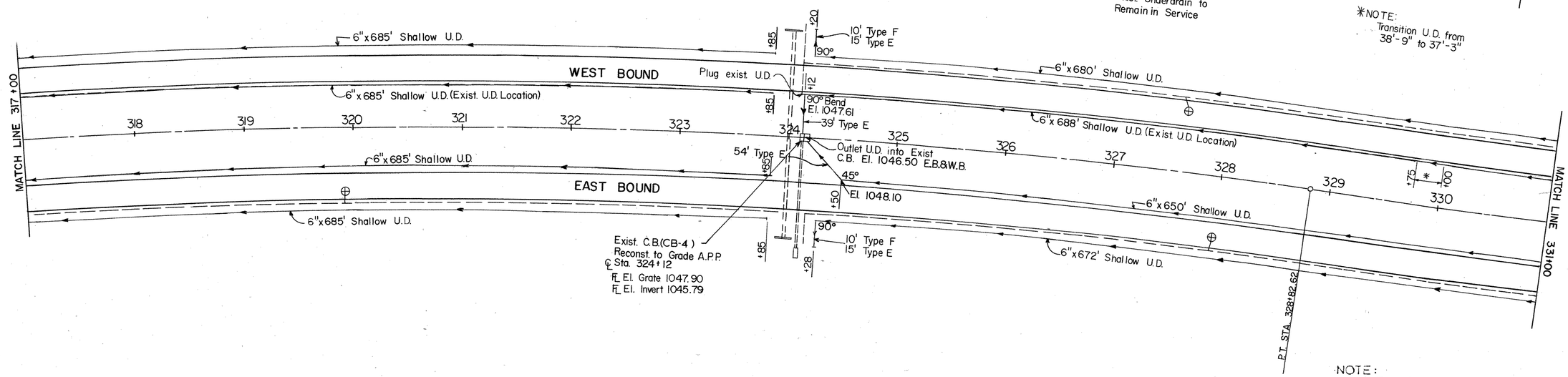
FAI - 70 -0.00
LIC - 70 -0.00





⊕ NOTE:
Exist. Underdrain to Remain in Service

✳ NOTE:
Transition U.D. from 38'-9" to 37'-3"



NOTE:
For Quantities See Sheet No. 89

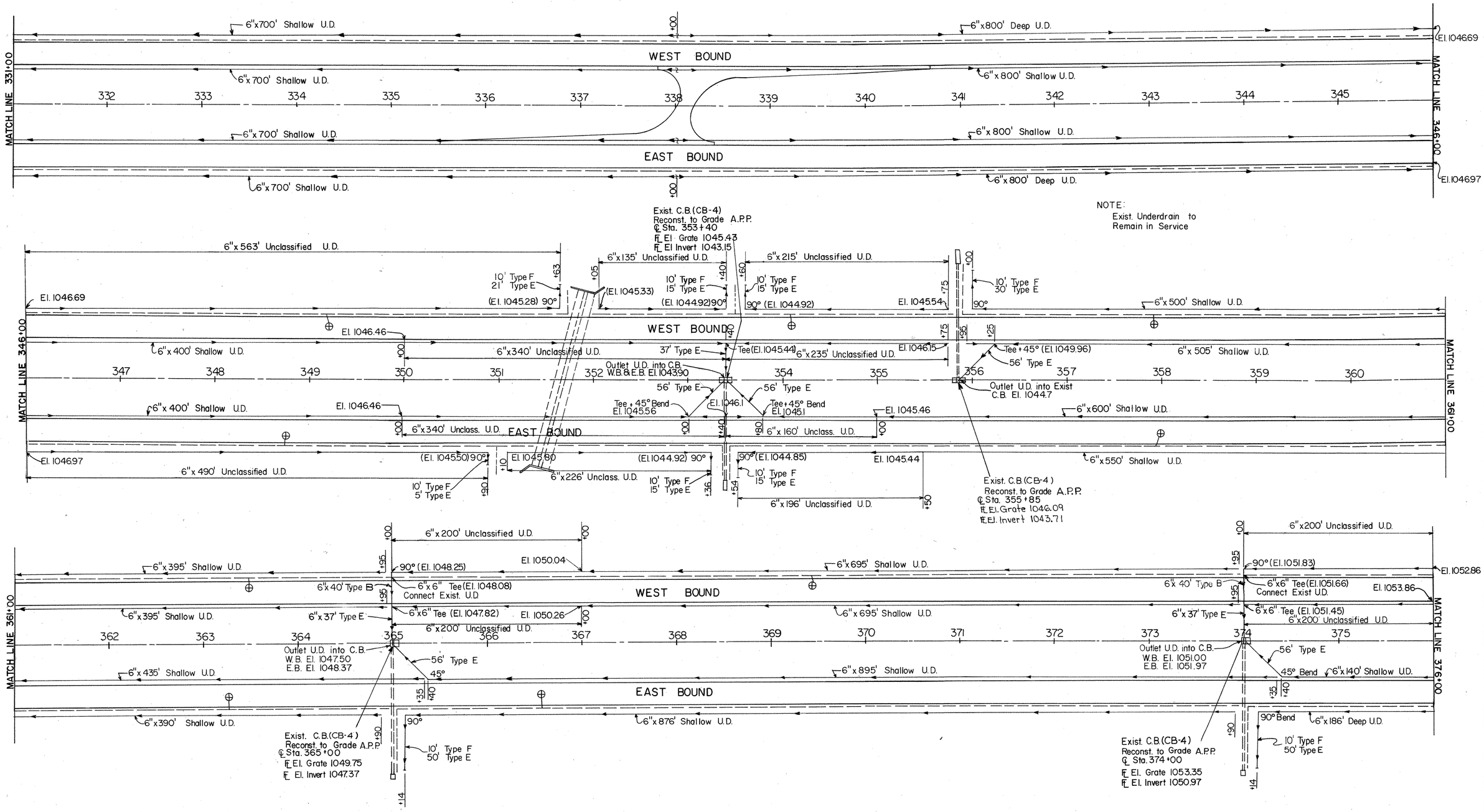
288+00 - 331+00

CALC. BY RJL
DATE 3/3/88
CHECK. BY RM
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

96
126

FAI - 70 -0.00
LIC - 70 -0.00



NOTE:
For Quantities See Sheet No. 89

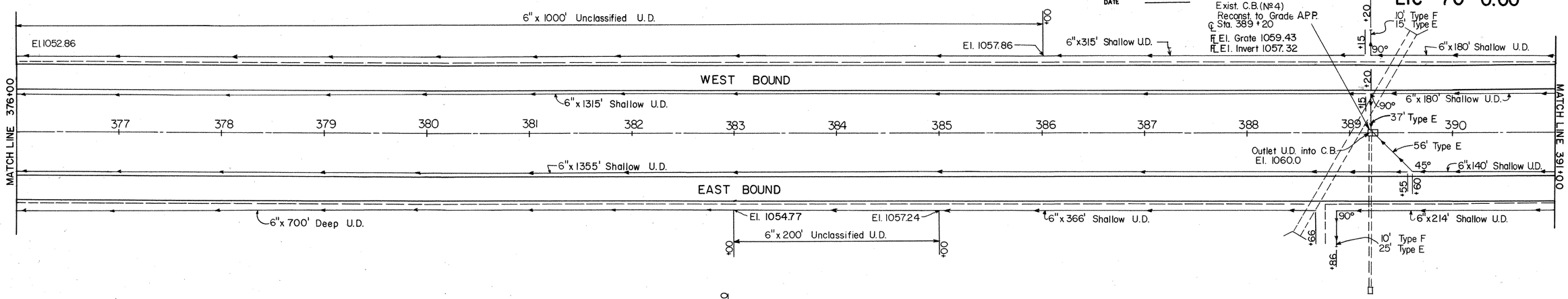
331+00 - 376+00

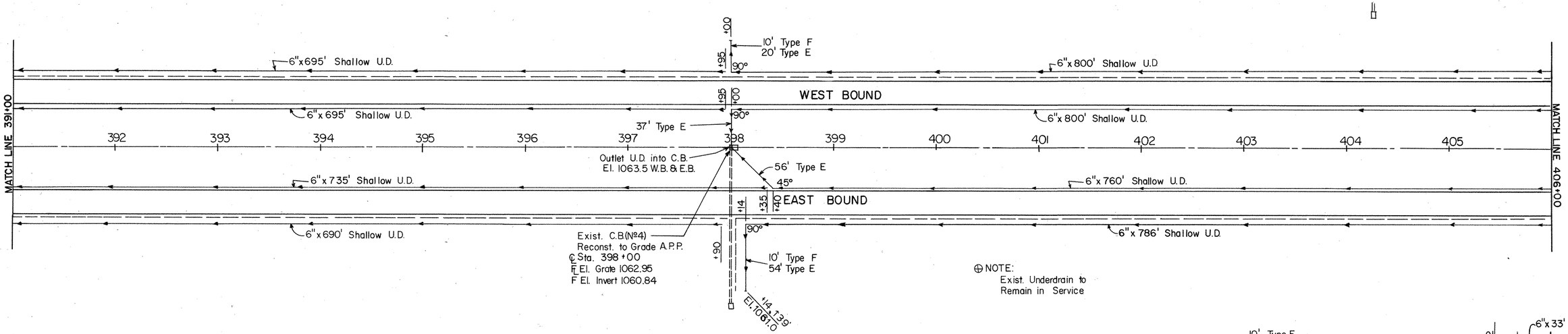
FHWA REGION	STATE	PROJECT	
5	OHIO		

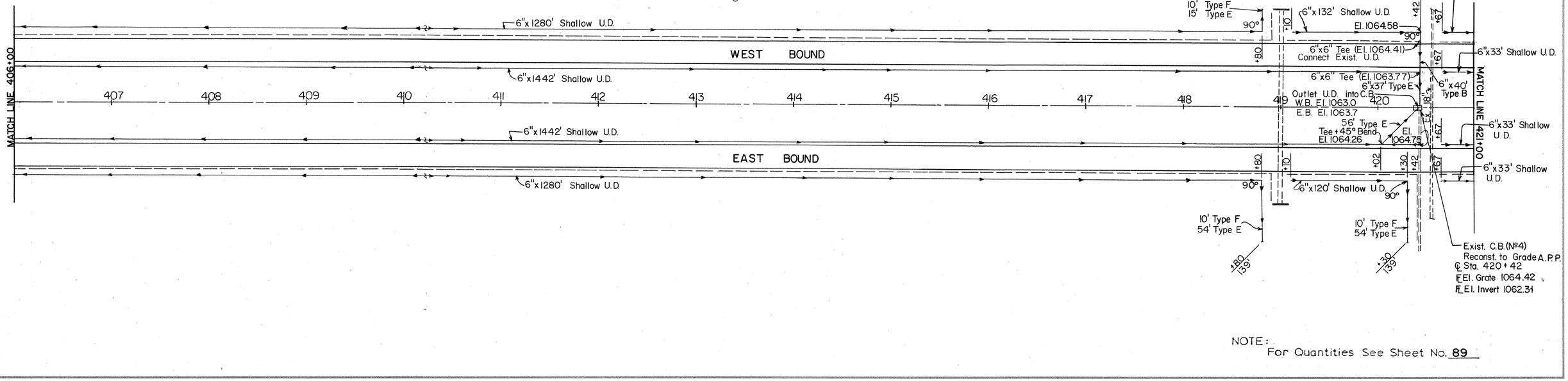
97
126

FAI - 70 - 0.00
LIC - 70 - 0.00

CALC. BY RSA
DATE 3/3/88
CHECK. BY TCM
DATE 3-4-88







NOTE:
For Quantities See Sheet No. 89

376+00 - 421+00

CALC. BY RJL
DATE 3/3/88
CHECK. BY RCM
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

98
126

FAI - 70 - 0.00
LIC - 70 - 0.00

MATCH LINE 421+00

6"x200' Unclassified U.D. +00
El. 1063.72
6"x6" Tee El. 1062.28
6"x418' Unclassified U.D.
0.3%
El. 1063.53 +18
90° El. 1063.98 +23
6"x477 Unclassified U.D. +00
El. 1067.59
6"x400' Shallow U.D.
6"x40' Type B
6"x6" Cross El. 1062.11 Connect Exist U.D.
Plug
6"x40' Type B +16
6"x6" Tee El. 1063.8± Connect Exist U.D.
WEST BOUND
El. 1063.94
6"x37' Type E
6"x200' Unclass. U.D. Outlet U.D. into C.B. +00
6"x6" Cross El. 1061.97
El. 1064.00 +00
6"x200' Unclassified U.D.
6"x218' Shallow U.D.
6"x37' Type E
6"x6" Tee (El. 1063.47)
6"x177' Unclassified U.D. +00
El. 1066.16
6"x700' Shallow U.D.
422 W.B. El. 1061.80 E.B. El. 1062.47 423 424 425 426 427 428 429 430 431 432 433 434 435
56' Type E
El. 1063.94
0.3%
Tee +45° Bend El. 1063.22
El. 1064.00
56' Type E
45° El.
6"x837' Shallow U.D.
6"x240' Unclassified U.D. +40
6"x160' Unclass. U.D. +00
6"x258' Shallow U.D.
+58 +63
EAST BOUND
El. 1063.72
0.3%
90°
El. 1062.77
6"x186' Unclass. U.D.)
90°
El. 1061.97
0.3%
6"x399' Unclassified U.D.
El. 1063.17 +13
90°
6"x363' Deep U.D.
El. 1065.37
6"x100' Unclass. U.D. +00
El. 1067.59
6"x400' Shallow U.D.
Exist. C.B.(№4) Reconst. to Grade A.P.P. ℄ Sta. 423+00 ℄ El. Grate 1063.83 ℄ El. Invert 1061.72
10' Type F 68' Type E
10' Type F 72' Type E
+86.54' El. 1062.71
+44.15' Rt. El. 1060.22
Exist. C.B.(CB-4) Reconst. to Grade A.P.P. ℄ Sta. 427+23 ℄ El. Grate 1065.48 ℄ El. Invert 1063.10
10' Type F 77' Type E
+37.16' Rt. El. 1062.25
+90 +20
10' Type F 15' Type E
90°
6"x90' Shallow U.D.
6"x1055' Shallow U.D.
6"x250' Unclassified U.D +75
El. 1076.23
El. 1076.98
+25 6"x75' Unclass. U.D.
El. 1076.92 (Ahead)
El. 1076.69

MATCH LINE 436+00

WEST BOUND
6"x195' Shallow U.D.
+90 +00 90°
37' Type E
6"x1175' Shallow U.D.
436 437 438 439 440 441 442 443 444 445 446 447 448 449 450
+75 El. 1076.45 0.3% 6"x250' Unclass. U.D. El. 1077.20 +25 6"x75' Unclass. U.D. El. 1076.97
56' Type E
6"x235' Shallow U.D.
45° Bend
6"x935' Shallow U.D.
+90 +10 +35 +40
EAST BOUND
El. 1076.69
6"x190' Shallow U.D.
90°
10' Type F 20' Type E
6"x965' Shallow U.D.
El. 1076.23 0.3% El. 1076.98 El. 1076.92 (Ahead)
+75 6"x250' Unclassified U.D. 6"x75' Unclass. U.D. +25
Exist. C.B.(№4) Reconst. to Grade A.P.P. ℄ Sta. 438+00 ℄ El. Grate 1071.34 ℄ El. Invert 1069.01

⊕NOTE:
Exist Underdrain to Remain in Service

MATCH LINE 451+00

P.C. STA. 457+38.92
P.T. STA. 459+58.92
El. 1076.69
6"x1400' Unclassified U.D. 0.3%
El. 1072.49 90° Bend +00
6"x95' Unclass. U.D. +05
El. 1071.81
El. 1071.52
WEST BOUND
El. 1073.37 +00
6"x6" Tee (El. 1072.32) Connect Exist U.D.
6"x40' Type B El. 1073.70
El. 1076.97
6"x1400' Unclassified U.D.
6"x6" Tee (El. 1072.02)
6"x37' Type E
6"x95' Unclass. U.D. +05
El. 1073.41
452 453 454 455 456 457 458 459 460 461 462 463 464 Outlet U.D. into C.B. 465
W.B. & E.B. El. 1071.63
6"x37' Type E
El. 1073.41
El. 1076.97
6"x1400' Unclassified U.D.
6"x6" Tee El. 1072.02
6"x95' Unclass. U.D. +05
El. 1073.37 +00
El. 1073.70
EAST BOUND
6"x6" Tee (El. 1072.32) Connect Exist U.D.
6"x40' Type B
El. 1076.79
6"x1400' Unclassified U.D. 0.3%
El. 1072.49 90° Bend +00
El. 1072.47
6"x95' Unclass. U.D. +05
El. 1072.18
Exist C.B.(№4) Reconst. to Grade A.P.P. ℄ Sta. 465+00 ℄ El. Grate 1073.99 ℄ El. Invert 1071.34

MATCH LINE 466+00

NOTE:
For Quantities See Sheet No. 89

421+00 - 466+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

99
126

FAI -70 -0.00
LIC -70 -0.00

CALC. BY RJL
DATE 3/3/88
CHECK. BY RM
DATE 3-4-88

Exist. C.B. (№4)
Reconst. to Grade A.P.P.
℄ Sta. 470+00
FL El. Grate 1072.79
FL El. Invert 1070.14

Exist. C.B. (№4)
Reconst. to Grade A.P.P.
℄ Sta. 474+50
FL El. Grate 1071.71
FL El. Invert 1068.79

475+69.44 = 15+49.67 RAMP 'A'

Exist. C.B. (№4)
Reconst. to Grade A.P.P.
℄ Sta. 478+85
FL El. Grate 1070.67
FL El Invert 1067.75

El. 1071.52
6"x 1268' Unclassified U.D. 0.3%
El. 1073.41
6"x 1275' Unclassified U.D. 0.3%
El. 1073.41
6"x 1285' Unclassified U.D. 0.3%
El. 1072.18
6"x 1260' Unclassified U.D. 0.3%

MATCH LINE 466+00
WEST BOUND
EAST BOUND
MATCH LINE 481+00

467 468 469 470 471 472 473 474 475 476 477 478 479 480

37' Type E
Tee 6"x 6" El. 1070.86
37' Type E
Tee 6"x 6" El. 1070.86

Tee +45° Bend El. 1069.68
55' Type E
Outlet U.D. into C.B.
W.B. El. 1069.35
E.B. El. 1068.75
90° Bend El. 1069.56
37' Type E

10' Type F
16' Type E
90° Bend El. 1068.00
2+48.34' Lt. El. 1067.50

El. 1072.20
6"x 190' Unclassified U.D. 0.3%
El. 1072.20
6"x 190' Unclassified U.D. 0.3%

RAMP 'A'
El. 1070.55
6"x 78' Unclass. U.D.
El. 1070.32
El. 1070.18

El. 1070.60
6"x 145' Unclassified U.D.
El. 1070.31
El. 1070.16

RAMP 'D'
El. 1869.57
90° Bend El. 1869.27
6"x 100' Unclass. U.D. 0.3%
5+15.28' Rt. El. 1869.00
El. 1065.20
6"x 25' Unclass. U.D.
El. 1065.12

45° Bend El. 1068.40
10' Type F
31' Type E
+89.36' Rt. El. 1068.0

RAMP 'B'

Exist. C.B. (№4)
Reconst. to Grade A.P.P.
℄ Sta. 486+67
FL El. Grate 1068.79
FL El. Invert 1068.41

475+00= 0+00 RAMP

+82 125' Lt. El. 1066.3
+10 125' Lt. El. 1066.3

10' Type F
39' Type E
90° Bend El. 1067.44
10' Type F
39' Type E
90° Bend El. 1067.45

El. 1070.32
6"x 882' Unclassified U.D.
El. 1069.0
El. 1068.62
6"x 570' Unclassified U.D. 0.3%
El. 1068.95
El. 1069.16

El. 1071.64
6"x 557' Unclassified U.D. 0.3%
El. 1069.75
Tee +45° Bend El. 1068.56
55' Type E
El. 1070.75
El. 1069.06
Outlet U.D. into C.B.
W.B. El. 1067.4
E.B. El. 1067.4
El. 1067.98
6"x 923' Unclassified U.D. 0.3%

MATCH LINE 481+00
WEST BOUND
EAST BOUND
MATCH LINE 496+00

482 483 484 485 486 487 488 489 490 491 492 493 494 495

Exist. 24"
37' Type E
90° Bend El. 1068.50

El. 1071.64
6"x 567' Unclassified U.D. 0.3%
El. 1069.75
El. 1070.75
6"x 923' Unclassified U.D. 0.3%
El. 1067.98

El. 1070.16
6"x 420' Unclassified U.D. 0.3%
90° Bend El. 1068.9
10' Type F
30' Type E
+20.116 Rt. El.
El. 1069.20
6"x 432' Unclassified U.D. 0.3%
90° Bend El. 1067.90
10' Type F
29' Type E
+82.115' El. 1067.5
90° Bend El. 1067.90
10' Type F
29' Type E
+10.115' Rt. El. 1067.5
6"x 525' Unclassified U.D. 0.3%
El. 1069.48
RAMP 'C'

⊕ NOTE:
Existing Underdrain to Remain in Service

Sta 502+25, 19' Lt.
Reconst. to Grade A.P.P.
Exist. C.B. (№8)
FL El. Grate 1067.30
FL El. Invert 1064.95
50+08.124' Lt.
El. 1063.0
10' Type F
27' Type E
90° Bend El. 1063.37

Sta. 500+75 ℄ I-70 = Sta. 0+00 Ramp 'B'
Back El. 1063.60
Ahead El. 1062.94

4+75
El. 1065.12
0.3%
6"x 580' Unclass. U.D.
El. 1063.69
El. 1063.80
RAMP "B"
El. 1066.37
6"x 865' Unclassified U.D. 0.3%
El. 1060.54

El. 1067.98
6"x 615' Unclassified U.D. 0.3%
Tee +45° Bend El. 1066.12
28' Type E
El. 1065.45
Outlet into C.B.
W.B. El. 1065.65
E.B. El. 1065.65
6"x 865' Shallow U.D. 0.3%
El. 1062.12

MATCH LINE 496+00
WEST BOUND
EAST BOUND
MATCH LINE 511+00

497 498 499 500 501 502 503 504 505 506 507 508 509 510

18' Type E
90° Bend El. 1066.10
El. 1065.45
Back El. 1065.18
Ahead El. 1064.52

El. 1067.98
6"x 625' Unclassified U.D. 0.3%
6"x 865' Shallow U.D. 0.3%
El. 1062.12

RAMP "C"
El. 1065.23
6"x 532' Unclass. U.D.
El. 1064.17
90° Bend El. 1063.63
El. 1062.79
6"x 890' Unclassified U.D. 0.3%
El. 1059.85

Exist. C.B. (№8)
Reconst. to Grade A.P.P.
Sta. 502+25, 19' Rt.
FL El. Grate 1067.30
FL El. Invert 1065.10
+80.129 Rt. El. 1063.30
10' Type F
23' Type E

Sta. 500+00 ℄ I-70 = Sta. 12+02.02 Ramp "C"
Back El. 1062.52
Ahead El. 1061.86

NOTE:
For Quantities See Sheet No. 89

466+00 - 511+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

CALC. BY RGL
DATE 3/3/88
CHECK. BY RM
DATE 3-4-88

FAI -70 -0.00
LIC -70 -0.00

100
126

MATCH LINE 511+00

MATCH LINE 526+00

MATCH LINE 541+00

MATCH LINE 556+00

WEST BOUND

EAST BOUND

NOTE:
Exist. Underdrain to Remain in Service

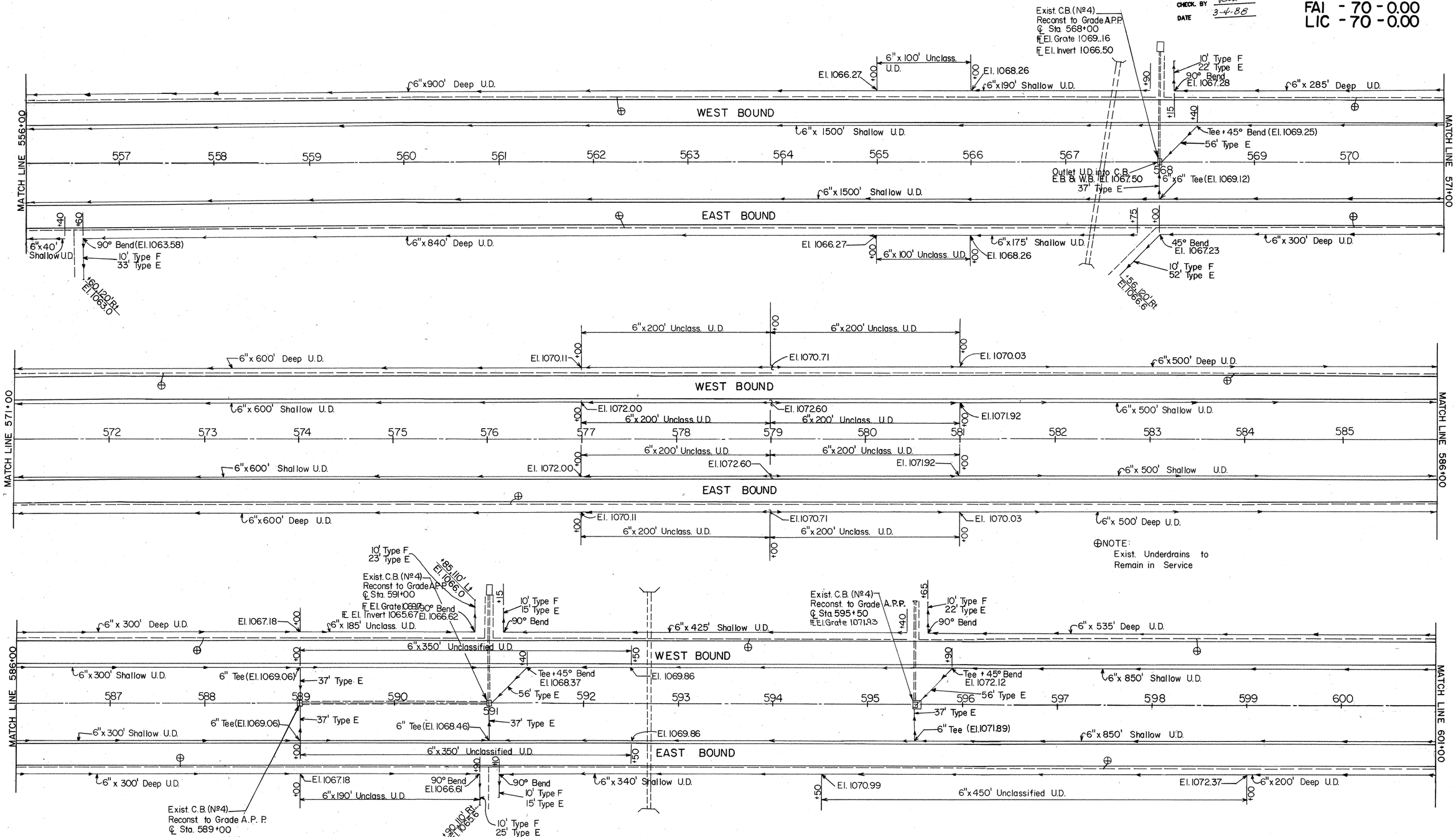
NOTE:
For Quantities See Sheet No. 89

511+00-556+00

CALC. BY	RJL
DATE	3/3/88
CHECK. BY	RM
DATE	3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

FAI - 70 - 0.00
LIC - 70 - 0.00



⊕NOTE:
Exist. Underdrains to Remain in Service

NOTE:
For Quantities See Sheet No. 89

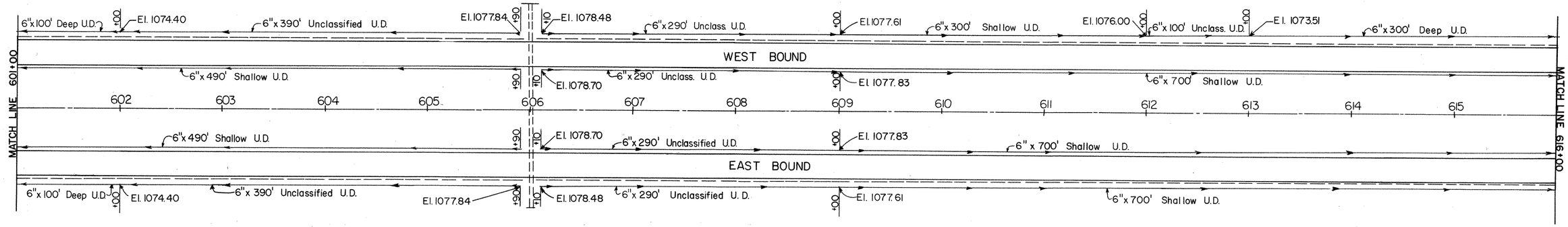
556+00 - 601+00

CALC. BY	RDL
DATE	3/3/88
CHECK. BY	RM
DATE	3-4-88

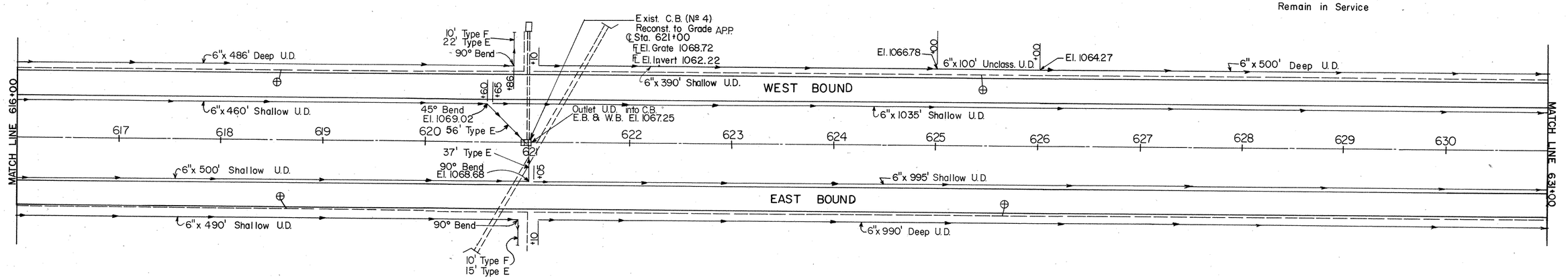
FHWA REGION	STATE	PROJECT	
5	OHIO		

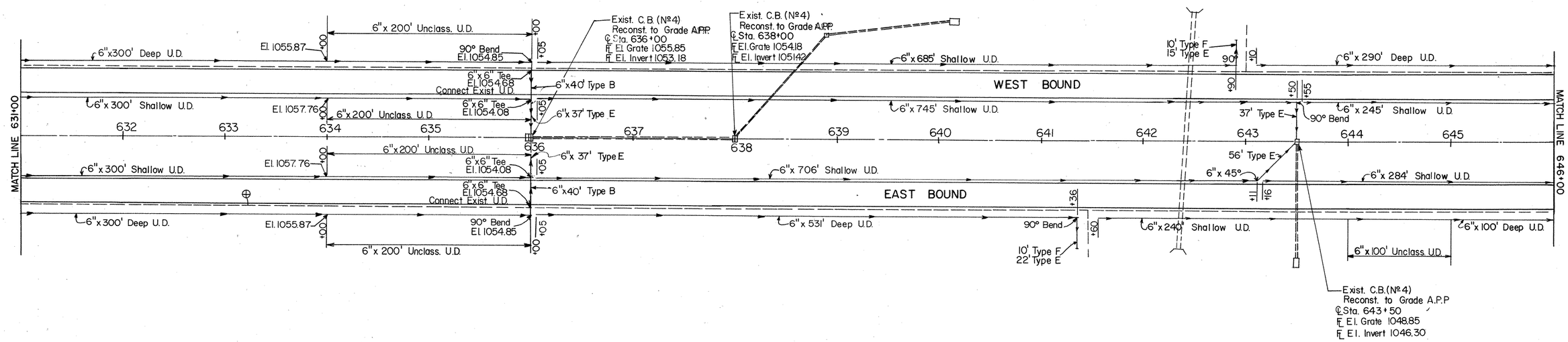
102
126

FAI - 70 -0.00
LIC - 70 -0.00



⊕ NOTE:
Exist. Underdrains to Remain in Service





NOTE:
For Quantities See Sheet No. 89

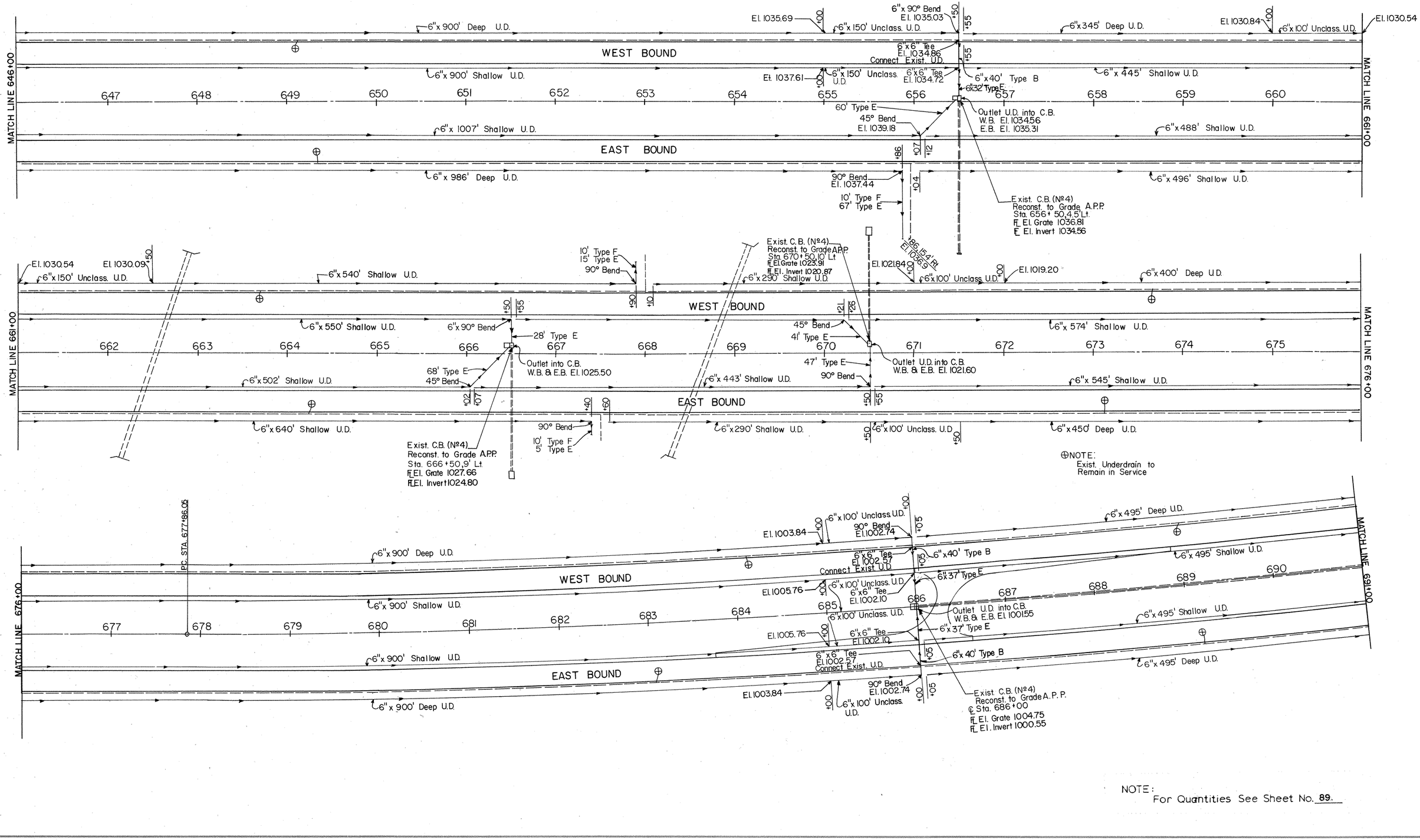
601+00 - 646+00

CALC. BY RSL
DATE 3/3/88
CHECK. BY RM
DATE 3-4-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

103
126

FAI - 70 -0.00
LIC - 70 -0.00



NOTE:
For Quantities See Sheet No. 89.

646+00 - 691+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

104
126

FAI - 70 - 0.00
LIC - 70 - 0.00

CALC. BY RGL
DATE 3/3/88
CHECK. BY RM
DATE 3-4-88

* Note: Transition U.D. from 38'-9" to 37'-3"

** Note: Transition U.D. from 21'-9" to 20'-3"

NOTE: Existing Underdrain to Remain in Service

NOTE: For Quantities See Sheet No. 89

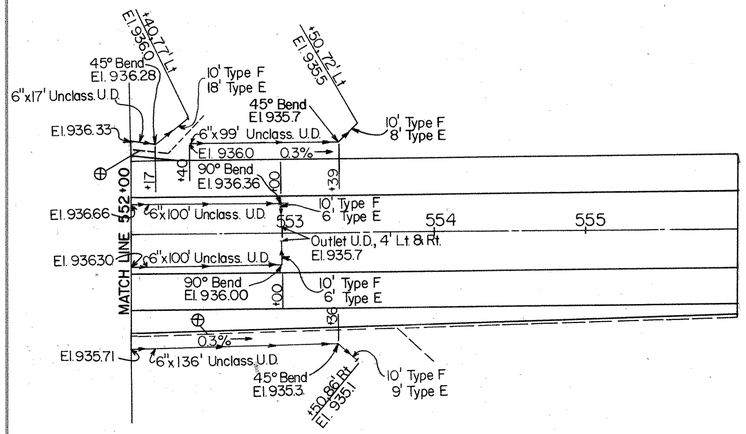
691+00 - 552+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

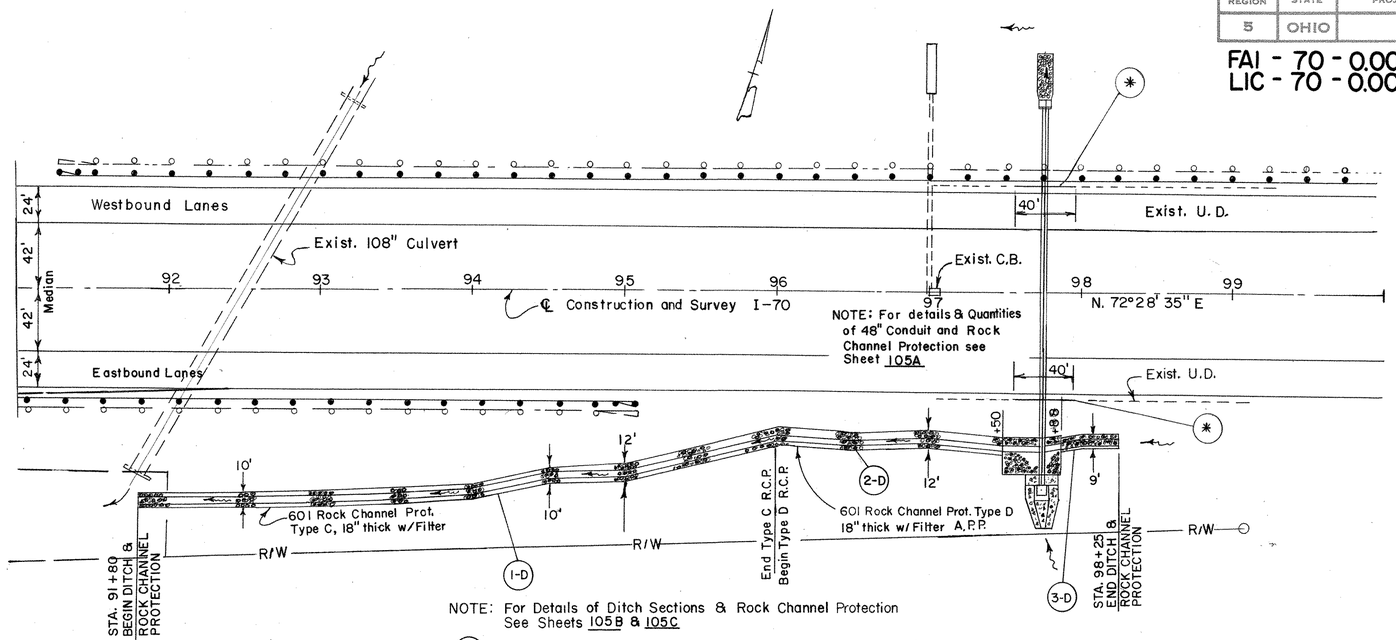
105
126

FAI - 70 - 0.00
LIC - 70 - 0.00

CALC. BY R.L
DATE 2-2-88
CHECK. BY Rmm
DATE 2-4-88



⊕NOTE:
Exist. Underdrain to
Remain in Service



NOTE: For Details of Ditch Sections & Rock Channel Protection See Sheets 105B & 105C

(*) An estimated quantity of 80 Lin.Ft. of 605 Unclassified Pipe Underdrains As Per Plan has been provided to replace the existing Underdrains that have been disturbed during the installation of the 48" Conduit.

MARK	STATION FROM	STATION TO	SIDE	601 ROCK CHANNEL PROTECTION TYPE C WITH FILTER CU. YD.	601 ROCK CHANNEL PROT. TYPE D AS PER PLAN WITH FILTER CU. YD.
1-D	91 + 80	96+00	RT.	274	
2-D	96+ 00	97+50	RT.		102
3-D	97+88	98+25	RT.		19
TOTAL				274	121

Quantity Carried to Sheet Nº 89

552+00 – 556+00

91+00 - 100+00

CALC. BY	RJL
DATE	3/3/88
CHECK. BY	Rm
DATE	3/4/88

FHWA REGION	STATE	PROJECT	
5	OHIO		

105A
126

FAI-70-0.00
LIC-70-0.00

SEEDING	
END WIDTH	SQ. YDS.

NOTE: Seeding included in Quantity on sheet 6.

1+57 LT. END ROCK CHANNEL PROTECTION, TYPE B W/FILTER

LT.
1+42 END CHANNEL
882.0

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
		8	1
39	2		
		29	3
67	10		
		12	2
0	0		
0	0		
		1	0
7	0		
		3	0
7	0		
TOTAL		56	7

Quantity carried to General Summary on sheet 48.

PLAN

NOTE: For Ditch Details see sheets 105B & 105C.

CONSTRUCTION REQUIREMENT:

During construction of the east-bound lanes the 48" pipe culvert shall be installed from the median area to the culvert's inlet, and during construction of the west-bound lanes the remaining portion of the culvert shall be placed. Within the median area, the contractor shall provide appropriate protection for the traveling public from all associated operations affecting the placement of the pipe culvert. Such protection may be a mounding of soil to a height of 3' minimum or other method approved by the Engineer. Payment shall be included in the unit price bid per Lin. Ft. for Item 603 48" Conduit Type A 707.05.

LONGITUDINAL SECTION

STA. 97+75

Scale in Feet

★ NOTE: For details of Nº 2-6 Catch Basin see sheet 90.

603 252 Lin. Ft. 48" Conduit Type A 707.05(0.138")
602 1.1 Cu. Yd. Concrete Masonry
601 91 Sq. Yd. Riprap using 6" Reinf. Conc. Slab
601 28 Cu. Yd. Rock Channel Protection Type B W/Filter
✱ 601 56 Cu. Yd. Rock Channel Protection Type D W/Filter
✱ AS PER PLAN

DRAINAGE AREA 68 A^{c} Q_{10} = 74 c.f.s. Q_{50} = 124 c.f.s.			
	48" x 252'	STA. 97+75	FAI-70-0185

CULVERT DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

105B
126

FAI-70-0.00
LIC-70 -0.00

CALC. BY RJL
DATE 3/3/88
CHECK. BY Rom
DATE 3-4-88

SEEDING
END WIDTH
SQ. YDS.
END AREA
VOLUME
CUT
FILL
TOTAL
STA. 96+00 RT.
END ROCK CHANNEL PROTECTION TYPE D W/FILTER
BEGIN ROCK CHANNEL PROTECTION TYPE C
18" THICK W/FILTER
ROCK CHANNEL PROTECTION TYPE C
18" THICK W/FILTER
STA 91+80 END DITCH
& ROCK CHANNEL PROTECTION
QUANTITIES CARRIED TO SHEET 48
NOTE
SEEDING INCLUDED IN
QUANTITY ON SHEET 6
96+00 RT.
95+50 RT.
95+00 RT.
94+50 RT.
94+00 RT.
93+50 RT.
93+00 RT.
92+50
92+00
91+50

X- SECTIONS 91+50 - 96+00

FHWA REGION	STATE	PROJECT
5	OHIO	

105C
126

FAI-70-0.00
LIC-70-0.00

CALC. BY RJL
DATE 3/3/88
CHECK. BY Rec
DATE 3-4-88

SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT
FILL
VOLUME
CUT
FILL
98+25 RT BEGIN DITCH WORK & ROCK CHANNEL PROTECTION
98+00 RT.
97+75 RT.
97+50 RT.
97+00 RT.
96+50 RT.
ROCK CHANNEL PROTECTION TYPE D
18" THICK W/FILTER
FOR CHANNEL DETAILS & QUANTITIES
SEE SHEET 105-A
TOP DIKE EL. 904.0
No 2-6 CATCH BASIN
SEE SHEET 90 & 105A
902.0
96.0' RT
901.0
101' RT.
900.5
101' RT.
900.0
96' RT.
899.0
98' RT.
NOTE
SEEDING INCLUDING
QUANTITY ON SHEET 6.
EB

X-SECTIONS 96+50-98+25

BRIDGE NOTES

CALC. BY
DATE
CHK'D BY
DATE

FHWA REGION	STATE	PROJECT		106 / 126
5	OHIO			

FAI -70-0.00
LIC -70-0.00

REFERENCE

DETAILED DRAWINGS OF THE EXISTING STRUCTURE MAY BE INSPECTED IN THE DISTRICT 5 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, JACKSONTOWN, OHIO.

REMOVED MATERIALS

ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY HIM FROM THE JOB SITE, UNLESS OTHERWISE NOTED.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND/ OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

AREAS OF WORK

THE GENERAL AREAS OF WORK AS INDICATED ON THE PLAN AND PROFILE AND DETAIL SHEETS ARE:

REMOVALS:
1. REMOVE ASPHALT WEARING COURSE,BRIDGE RAILINGS,PARAPETS AND PORTIONS OF EXISTING DECK

CONSTRUCTION:
1. INSTALL EXPANSION JOINTS AND PARAPETS
2. PATCH CONCRETE DECKS
3. OVERLAY BRIDGE DECKS

REPLACEMENT OF EXISTING REINFORCING STEEL

ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW STEEL AT HIS COST. ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW STEEL. AN ADDITIONAL 3,000 LBS. IS INCLUDED IN ITEM 824 FOR THIS PURPOSE.

ESTIMATED QUANTITIES

AN ESTIMATED AMOUNT OF THE FOLLOWING QUANTITIES HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR BIDDING PURPOSES, BUT FINAL QUANTITIES SHALL BE DETERMINED BY ACTUAL FIELD MEASUREMENTS AT THE COMPLETION OF THE WORK.

BRIDGE NUMBERS	0084L	0084R	0119L	0119R	0074L	0074R	TOTAL
ITEM 850-SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS)	30	30	35	75	30	30	230
ITEM 850-FULL DEPTH REPAIR	3	3	3	6	3	3	21

ITEM 202-ALUMINUM BRIDGE RAILING REMOVED FOR STORAGE

CARE SHALL BE TAKEN NOT TO DAMAGE THE ALUMINUM RAIL AND SUPPORTS. IT SHALL BE CAREFULLY REMOVED AND NEATLY STORED ON THE JOB SITE FOR REMOVAL BY STATE FORCES.

PAYMENT SHALL BE PER LINEAR FOOT ITEM 202 ALUMINUM BRIDGE RAILING REMOVED FOR STORAGE.

FAI-70-0084L	212 LIN FT.	FAI-70-0119R	348 LIN FT.
FAI-70-0084R	212 LIN FT.	LIC-70-0074L	321 LIN FT.
FAI-70-0119L	342 LIN FT.	LIC-70-0074R	300 LIN FT.
			1735 LIN.FT.

REINFORCING STEEL SAMPLES

REFER TO CMS SECTIONS 106.03, 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY THE ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.08.

PROTECTION OF TRAFFIC UNDER OVERHEAD STRUCTURES

THE CONTRACTOR SHALL PROVIDE A SAFETY NET OR PLATFORM OF SUITABLE STRENGTH AT THE UNDERSIDE OF THE DECK TO PROTECT PEDESTRAIN AND VEHICULAR TRAFFIC DURING WORK BEING DONE ON THE OVERHEAD STRUCTURE. THE DESIGN OF THE NET OR PLATFORM SHALL CONFORM WITH O.S.H.A. REQUIREMENTS AND THE APPROVAL OF THE ENGINEER AND SHALL REMAIN IN PLACE UNTIL THE WORK HAS BEEN COMPLETED AND ACCEPTED OR AS DIRECTED BY THE ENGINEER.

PAYMENT TO BE INCLUDED UNDER ITEM 614, MAINTAINING TRAFFIC.

REMOVAL OF CONCRETE PARAPETS AND EDGES

CONCRETE REMOVALS ON PARAPETS & EDGES SHALL BE DONE BY THE USE OF 40 - 65 LB. CLASS JACK HAMMERS ONLY. NO OTHER METHOD SHALL BE USED UNLESS APPROVED BY THE DISTRICT 5 CONSTRUCTION ENGINEER.

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

BR-1	DATED	5-29-79
EXJ-2-81	DATED	4-2-84R
SD-1-65	DATED	11-8-65
GR-1	DATED	1-11-85
GR-3	DATED	1-21-85
GR-2B	DATED	2-5-82

AND TO SUPPLEMENTAL SPECIFICATIONS:

824	DATED	10-8-82
850	DATED	2-25-86
849	DATED	12-24-85
949	DATED	9-26-86
852	DATED	6-10-87
853	DATED	6-26-78
952	DATED	6-10-87
956	DATED	6-26-78

Revised 4-6-88

ITEM 516-MODIFICATION OF STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC COMPRESSION SEALS, 5-INCH WIDTH, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL THE WORK AND MATERIALS NECESSARY TO MODIFY AND ENCLOSE THE EXPANSION JOINTS. REMOVAL OF EXISTING CONCRETE AND STEEL CURB PLATES SHALL BE IN ACCORDANCE WITH 202.03.
THE PROPOSED SUPERSTRUCTURE EXPANSION JOINT AND BARS SHALL BE FURNISHED IN MAXIMUM LENGTHS POSSIBLE TO ALLOW FOR TRAFFIC MAINTENANCE AND SHALL BE BUTT WELDED TOGETHER TO FORM A WATERTIGHT JOINT. THE COMPRESSION SEALS SHALL NOT BE INSTALLED UNTIL ALL OTHER WORK HAS BEEN COMPLETED ON THE BRIDGE.
MATERIALS: STEEL PLATE BARS AND ANGLES SHALL CONFORM TO ASTM A36 OR A588.
THE COMPRESSION SEAL SHALL BE AS PER STD. DWG. EXJ-2-81.
SPLICE OR JOINT IN COMPRESSION SEAL: COMPRESSION SEAL FOR BRIDGE DECK JOINTS SHALL BE FURNISHED IN ONE CONTINUOUS PIECE UNLESS A SHOP FABRICATED SPLICE, FIELD SPLICE OR FIELD BUTT JOINT IS APPROVED BY THE DIRECTOR.
FOR OTHER THAN STRAIGHT SEALS WITHOUT INTERMEDIATE SPLICES, SEAL GLANDS SHALL BE SHOP FABRICATED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. SHOP DRAWING DIMENSIONS FOR EXISTING JOINTS OR FOR JOINTS WHICH ARE BEING MODIFIED SHALL BE BASED ON FIELD MEASUREMENTS PROVIDED BY THE CONTRACTOR.
THE COMPRESSION SEAL SHALL BE AS MANUFACTURED BY THE WATSON-BOWMAN AND ACME CORPORATION, 95 PINEVIEW DRIVE, AMHERST, NEW YORK 14120; THE D. S. BROWN COMPANY, P.O. BOX 158, NORTH BALTIMORE, OHIO 45872 OR AN APPROVED ALTERNATE.
MEASUREMENT FOR PAY PURPOSES SHALL BE BASED ON THE LINEAR FEET OF SEALED JOINT SYSTEM MEASURED HORIZONTALLY ALONG THE BACK OF THE STEEL RETAINER AND BETWEEN THE FACES OF THE DECK.

PAYMENT SHALL BE MADE PER LINEAR FOOT FOR ITEM 516, MODIFICATION OF STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC COMPRESSION SEALS, 5-INCH WIDTH, AS PER PLAN, WHICH SHALL INCLUDE ALL REMOVALS, CONCRETE, STEEL BARS, ANGLES, COMPRESSION SEAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

WJ-500
WATSON-BOWMAN & ACME CORP.

CV-5000
D.S. BROWN COMPANY

COMPRESSION SEALS

ITEM 601-ROCK CHANNEL PROTECTION, TYPE B WITH FILTER

THE QUANTITY OF 553 CU. YDS. HAS BEEN INCLUDED IN THE GENERAL SUMMARY ON SHT. 48 FOR EROSION CONTROL TO BE USED AT FAI-70-0084L/R REAR ABUTMENT. PLACEMENT OF THE ROCK SHALL BE AT THE DISCRETION OF THE ENGINEER. FINAL QUANTITY SHALL BE DETERMINED AFTER COMPLETION OF WORK. FOR LOCATION OF ROCK PLACEMENT SEE SHEET 108.

BRIDGE DECK CONDITION SURVEY (GEN. INFORM. ONLY)

BRIDGE Nº	Deck Area	Sounded		
		Method	Date	Area
FAI-70-0084 L	710	cored	2-29-88	710
FAI-70-0084 R	646	cored	2-2-88	646
FAI-70-0119 L	761	cored	2-29-88	761
FAI-70-0119 R	1326	cored	3-2-88	1326
* LIC-70-0074 L	711	visual	3-3-88	711
* LIC-70-0074 R	696	visual	3-3-88	696

*Bridges to be cored prior to letting of project.

BRIDGE SUMMARY

CALC. BY [illegible] DATE 1-15-88
CHKD. BY [illegible] DATE 1-21-88

FAI-70-0.00
LIC-70-0.00

OHIO
FHWA REGION
FEDERAL PROJECT

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ITEM	SHEET NUMBER	BRIDGE NUMBER						ITEM	QUANT.	UNIT	DESCRIPTION
	106	FAI. 70 0084L	FAI. 70 0084R	FAI. 70 0119 L	FAI. 70 0119 R	LIC. 70 0074L	LIC. 70 0074 R				
											STRUCTURES OVER 20' SPAN
202		29	29	45/5	46/6	40/7	38/ 7	202	252	CU.YD.	PORTIONS OF STRUCTURES REMOVED, SUPERSTRUCTURE
202				78	138	110	110	202	436	LIN.FT.	PORTIONS OF EXPANSION JOINTS REMOVED, AS PER PLAN
202		697	633	741	1306	693	667	202	4737	SQ.YD.	WEARING COURSE REMOVED
202											
202		212	212	342	348	321	300	202	1735	LIN.FT.	ALUMINUM BRIDGE RAIL REMOVED FOR STORAGE
510		188	188	292	298	262	246	510	1474	EACH	DOWEL HOLES
511		25	25	38/5	39/6	35/7	33/7	511	220	CU.YD.	CLASS S CONCRETE, SUPERSTRUCTURE
516				86	142	121.83	121.83	516	471.66	LIN.FT.	MODIFICATION OF STRUCTURAL EXPANSION JOINTS INCLUDING ELASTOMERIC COMPRESSION SEAL, 5-INCH WIDTH, AS PER PLAN
824	3000	3655	3655	5563	5669	5094	4877	824	31,513	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60
850		710	646	761	1326	711	693	850	4847	SQ.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (1 3/4" THICK)(SEE PROPOSAL NOTE)
850		30						850	30	CU.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VAR. THICKNESS)(FAI-70-0084L)(SEE PROPOSAL NOTE)
850		3	3	3	6	3	3	850	21	CU.YD.	FULL DEPTH REPAIR (SEE PROPOSAL NOTE)
850		—	—	—	—	—	—	850	LUMP		TEST SLAB (SEE PROPOSAL NOTE)
513				1391	2395	1391	1391	513	6568	POUND	STRUCTURAL STEEL, AS PER PLAN
SPEC		198	198	304	310	281	263	SPEC	1554	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY)(SEE PROPOSAL NOTE)
518		10	10	8	12	8	8	518	56	EACH	VERTICAL EXTENSION OF DOWNSPOUTS, AS PER PLAN
518		10	10	8	12	8	8	518	56	EACH	VERTICAL EXTENSION OF SCUPPERS, AS PER PLAN
850			30					850	30	CU.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VAR. THICKNESS)(FAI-70-0084R)(SEE PROP. NOTE)
850				35				850	35	CU.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VAR. THICKNESS)(FAI-70-0119L)(SEE PROP. NOTE)
850					75			850	75	CU.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VAR. THICKNESS)(FAI-70-0119R)(SEE PROP. NOTE)
850						30		850	30	CU.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VAR. THICKNESS)(LIC-70-0074L)(SEE PROP. NOTE)
850							30	850	30	CU.YD.	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VAR. THICKNESS)(LIC-70-0074R)(SEE PROP. NOTE)

FHWA REGION	STATE	PROJECT	
5	OHIO		

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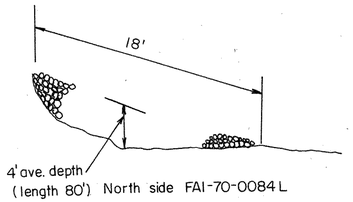
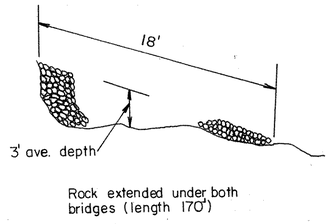
FAI-70-0.00
LIC-70-0.00

CALCULATED BY [illegible] DATE 1-15-88
CHECKED BY RLD DATE 1-21-88



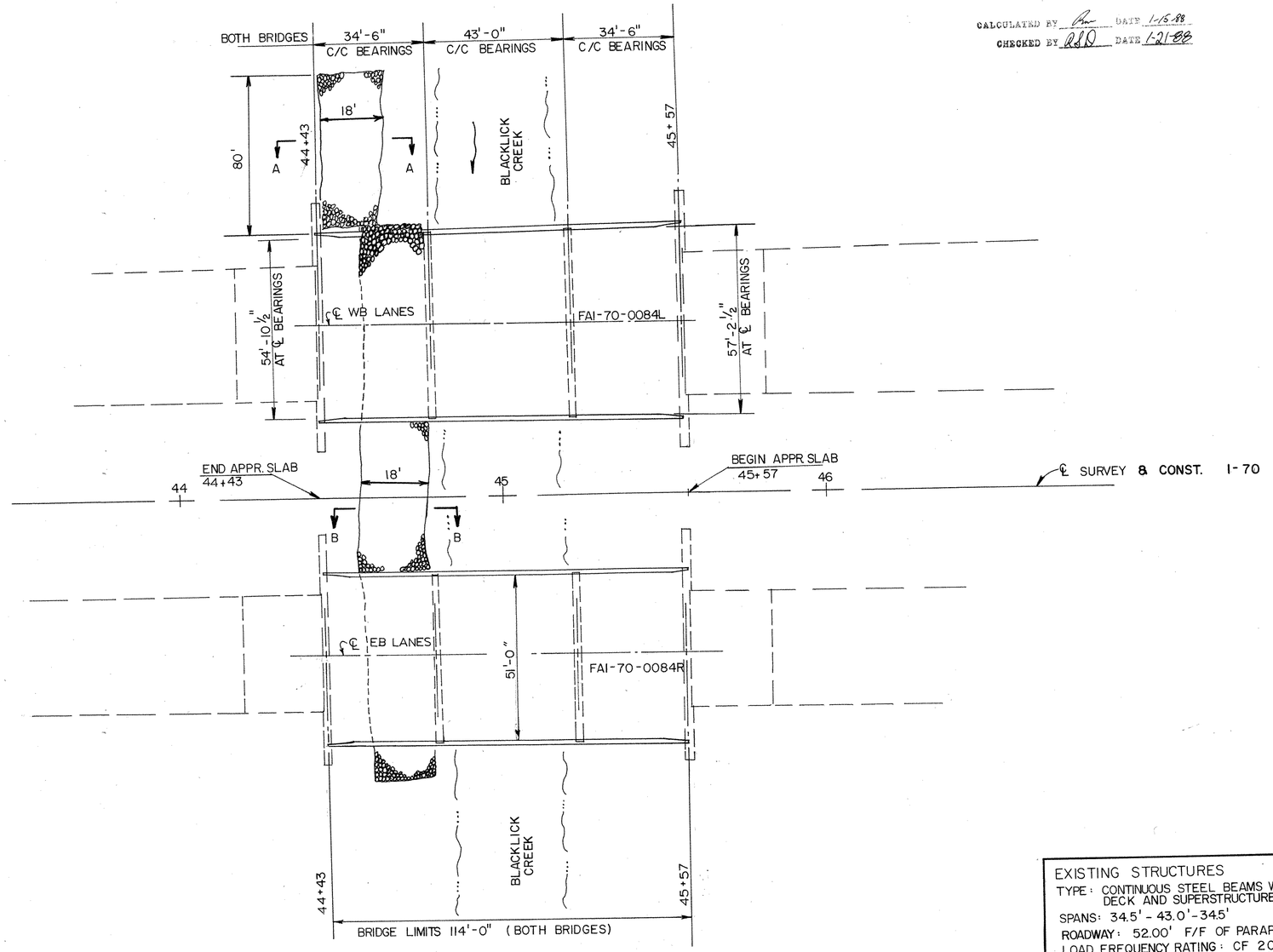
SECTION A-A

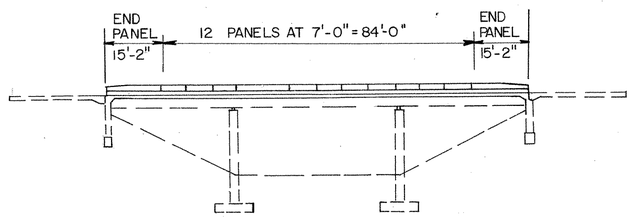


Rock extended under both bridges (length 170')

SECTION B-B

ROCK CHANNEL PROTECTION TYPE B WITH FILTER





EXISTING STRUCTURES
TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK AND SUPERSTRUCTURE
SPANS: 34.5' - 43.0' - 34.5'
ROADWAY: 52.00' F/F OF PARAPETS
LOAD FREQUENCY RATING: CF 2000 (57)

SKEW: 0°00
ALIGNMENT: TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE, 3¾" ASPHALT
APPROACH SLAB: AS-1-54 (25'-0" LONG)

REHABILITATED STRUCTURES
ROADWAY: 51'-0" (0084) — VARIES AS SHOWN (0084L) F/F PARAPET CURBS
BRIDGE RAILING: DEFLECTOR PARAPET TYPE
WEARING SURFACE: 1¾" SUPERPLASTICIZED DENSE CONCRETE OVERLAY

Br. № FAI-70-0084 L/R

GENERAL PLAN & ELEVATION

FHWA REGION	STATE	PROJECT	
5	OHIO		

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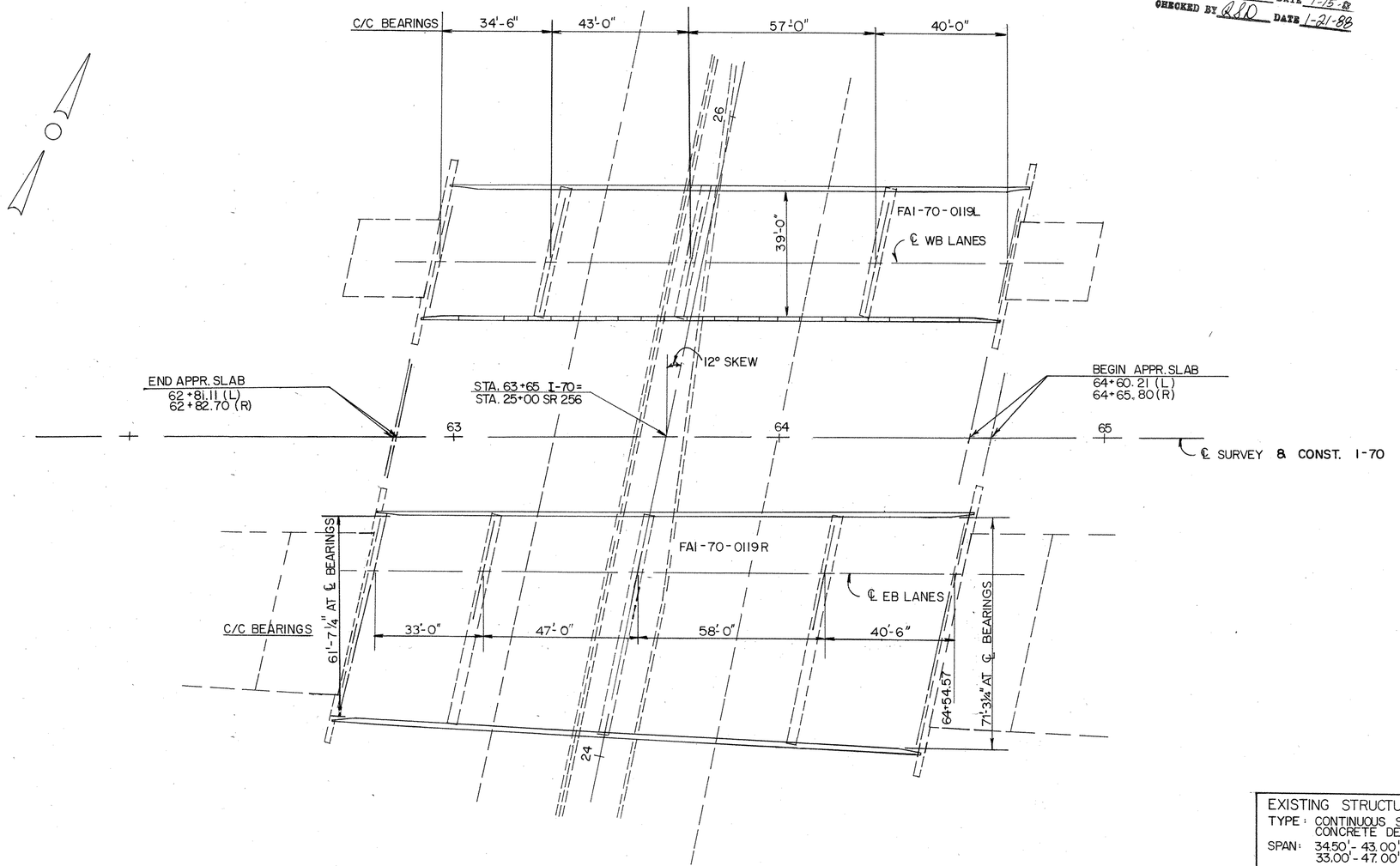
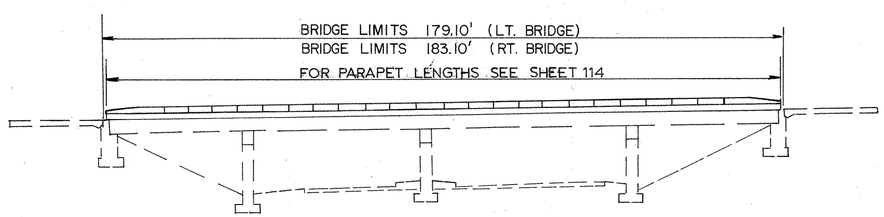
CALCULATED BY RM DATE 1-15-88
CHECKED BY RBD DATE 1-21-88

FAI-70-0.00
LIC-70-0.00





EXISTING STRUCTURES
TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK AND SUPERSTRUCTURE
SPAN: 34.50'-43.00'-57.00'-40.00' (L)
33.00'-47.00'-58.00'-40.50' (R)
ROADWAY: 38'-0" F/F OF CURB (L) VARIABLE (R)
LOAD FREQUENCY RATING: CF 2000 (57)

SKEW: 12° LF
ALIGNMENT: TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE, 3¾" ASPHALT
APPROACH SLAB: AS-1-54 (25' LONG)

REHABILITATED STRUCTURES
ROADWAY: 39'-0" F/F OF PARAPET CURBS (L) VARIABLE AS SHOWN(R)
BRIDGE RAILING: DEFLECTOR PARAPET TYPE
WEARING SURFACE: 1¾" SUPERPLASTICIZED DENSE CONCRETE OVERLAY

Br. № FAI-70-0119 L/R

GENERAL PLAN & ELEVATION

CALCULATED BY Rm DATE 1-15-88
CHECKED BY RSD DATE 1-21-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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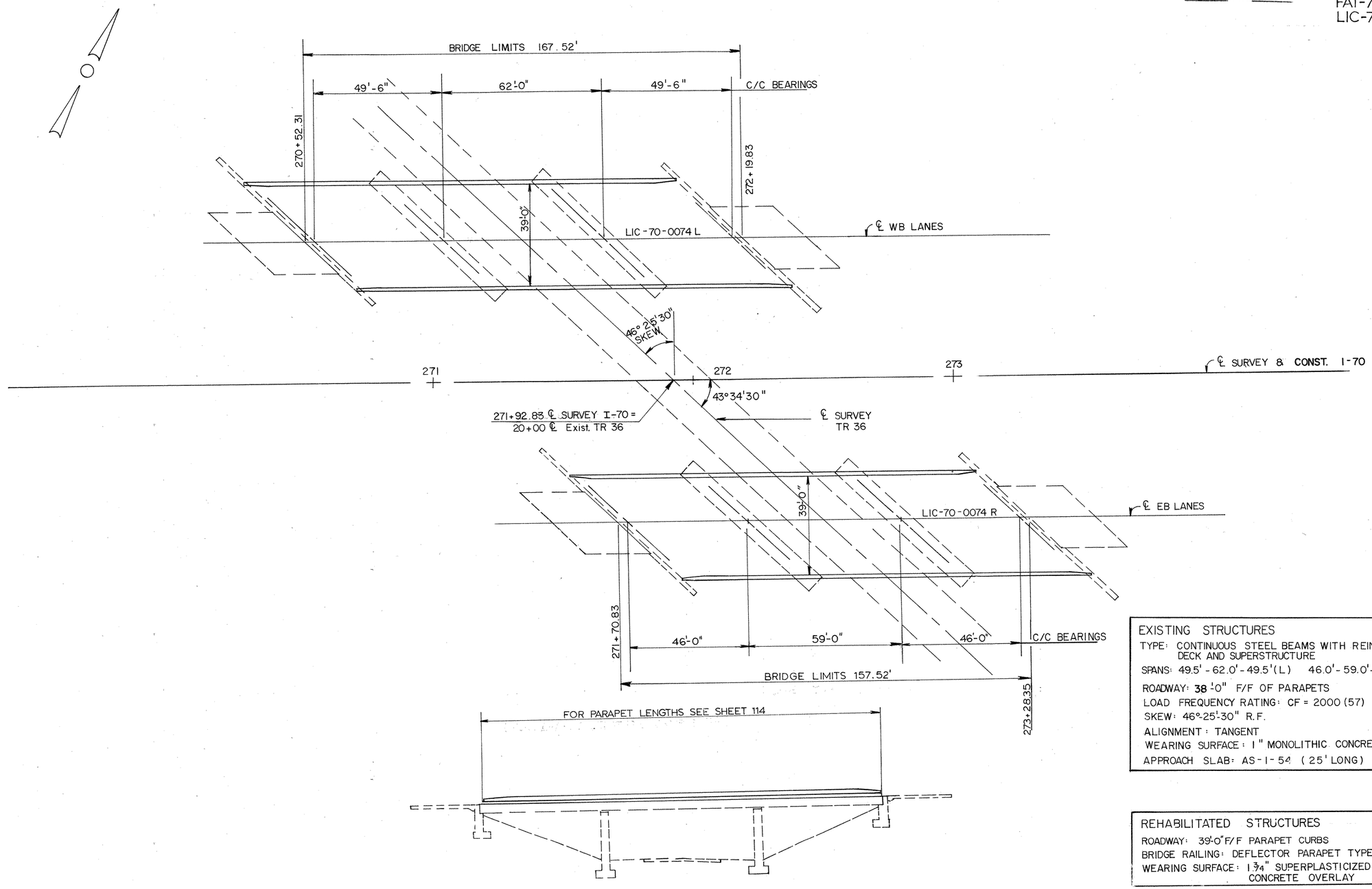
FAI-70-0.00
LIC-70-0.00



EXISTING STRUCTURES

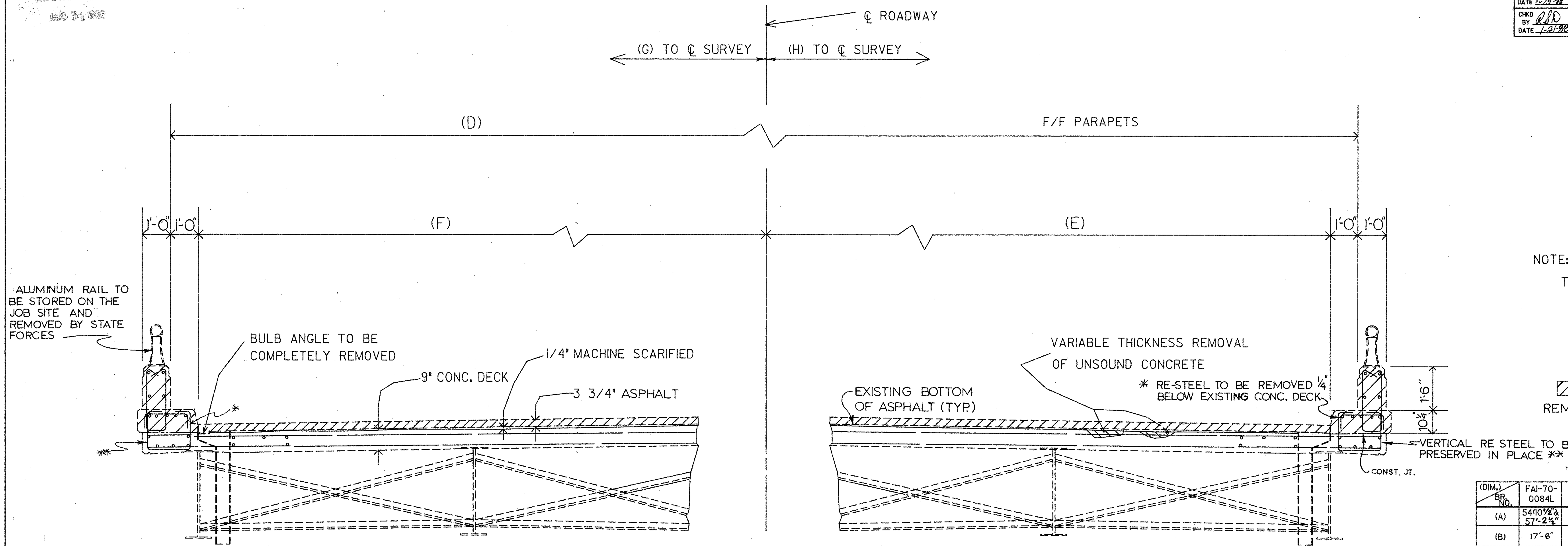
TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK AND SUPERSTRUCTURE
SPANS: 49.5' - 62.0' - 49.5'(L) 46.0' - 59.0' - 46.0' (R)
ROADWAY: 38'-0" F/F OF PARAPETS
LOAD FREQUENCY RATING: CF = 2000 (57)
SKEW: 46°-25'-30" R.F.
ALIGNMENT: TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE, 3 3/4" ASPHALT
APPROACH SLAB: AS-1-54 (25' LONG)

REHABILITATED STRUCTURES

ROADWAY: 39'-0" F/F PARAPET CURBS
BRIDGE RAILING: DEFLECTOR PARAPET TYPE
WEARING SURFACE: 1 3/4" SUPERPLASTICIZED DENSE CONCRETE OVERLAY

Br. № LIC-70-0074 L/R

GENERAL PLAN & ELEVATION



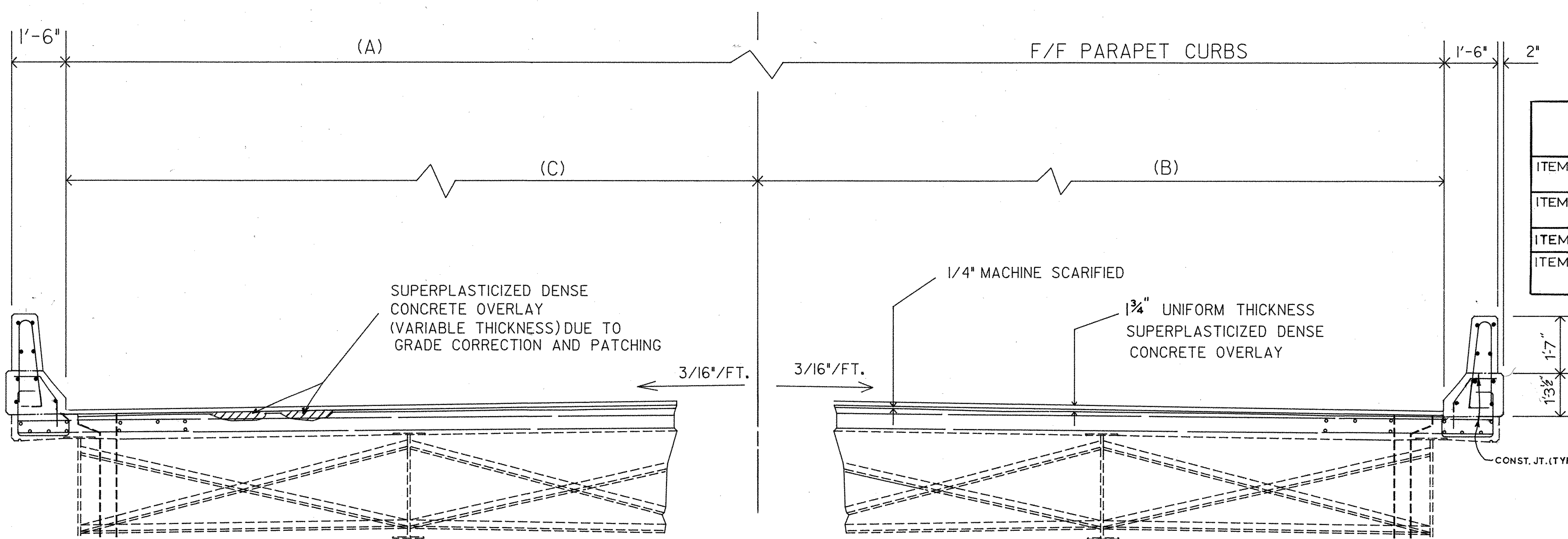
EXISTING

NOTE: DECK RE-STEEL NOT TO BE DISTURBED

REMOVALS

(DIM.) / BR. NO.	FAI-70-0084L	FAI-70-0084R	FAI-70-0119L	FAI-70-0119R	LIC-70-0074L	LIC-70-0074R
(A)	54'-10½" & 57'-2½"	51'	39'	61'-7¼" & 71'-3¼"	39'	39'
(B)	17'-6"	33'-6"	17'-6"	44'-1¼" & 53'-9¼"	17'-6"	21'-6"
(C)	37'-4½" & 39'-8½"	17'-6"	21'-6"	17'-6"	21'-6"	17'-6"
(D)	55'-10½" & 58'-2½"	52'	40'	62'-7¼" & 72'-3¼"	40'	40'
(E)	17'	33'	17'	43'-7¼" & 53'-3¼"	17'	21'
(F)	36'-10½" & 39'-2½"	17'	21'	17'	21'	17'
(G)	—	42'	—	42'	—	54'
(H)	42'	—	54'	—	54'	—

DESCRIPTION		Br. Nº FAI-70 0084L	Br. Nº FAI-70 0084R	Br. Nº FAI-70 0119L	Br. Nº FAI-70 0119R	Br. Nº LIC-70 0074L	Br. Nº LIC-70 0074R	Units
ITEM 202	PORTIONS OF STRUCTURES REMOVED, SUPERSTRUCTURE	29	29	45	46	40	38	Cu. Yd.
ITEM 202	WEARING COURSE REMOVED	697	633	741	1306	693	667	Sq. Yd.
ITEM 850	TEST SLAB	—	—	—	—	—	—	Lump
ITEM 850	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (1¾" THICK)	710	646	761	1326	711	693	Sq. Yd.



PROPOSED

CALC BY [illegible] DATE 1-15-92
CHKD BY RSD DATE 1-21-92

FAI-70-0.00
LIC-70-0.00

OHIO
FHWA REGION 5

FAI-70-0084L/R

MARK	NO. REQ'D L	NO. REQ'D R	LENGTH	SHAPE	WEIGHT L	WEIGHT R
ES501	168	168	5'-8"	BT.	993	993
ES502	24	24	30'-0"	ST.	751	751
ES503	4	4	2'-10"	BT.	12	12
ES504	4	4	3'-0"	BT.	13	13
ES505	4	4	3'-3"	BT.	14	14
ES506	4	4	3'-5"	BT.	14	14
ES507	4	4	3'-8"	BT.	15	15
ES508	32	32	4'-4"	ST.	145	145
ES509	28	28	2'-2"	ST.	63	63
ES510	4	4	2'-5"	ST.	10	10
ES511	4	4	2'-7"	ST.	11	11
ES512	4	4	2'-9"	ST.	11	11
ES513	4	4	3'-0"	ST.	13	13
ES514	4	4	1'-11"	BT.	8	8
ES515	4	4	2'-0"	BT.	8	8
ES516	4	4	2'-1"	BT.	9	9
ES517	4	4	2'-1"	BT.	9	9
ES518	4	4	2'-2"	BT.	9	9
ES519	96	96	6'-8"	ST.	668	668
ES520	168	168	2'-5"	BT.	423	423
ES521	8	8	29'-0"	ST.	242	242
ES522	16	16	12'-10"	ST.	214	214
TOTALS					3655	3655

LIC-70-0074L/R

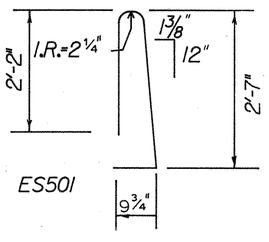
MARK	NO. REQ'D L	NO. REQ'D R	LENGTH	SHAPE	WEIGHT L	WEIGHT R
ES501	242	226	5'-8"	BT.	1430	1336
ES502	40	40	30'-0"	ST.	1252	1252
ES503	4	4	2'-10"	BT.	12	12
ES504	4	4	3'-0"	BT.	13	13
ES505	4	4	3'-3"	BT.	14	14
ES506	4	4	3'-5"	BT.	14	14
ES507	4	4	3'-8"	BT.	15	15
ES508	32	32	4'-4"	ST.	145	145
ES509	28	28	2'-2"	ST.	63	63
ES510	4	4	2'-5"	ST.	10	10
ES511	4	4	2'-7"	ST.	11	11
ES512	4	4	2'-9"	ST.	11	11
ES513	4	4	3'-0"	ST.	13	13
ES514	4	4	1'-11"	BT.	8	8
ES515	4	4	2'-0"	BT.	8	8
ES516	4	4	2'-1"	BT.	9	9
ES517	4	4	2'-1"	BT.	9	9
ES518	4	4	2'-2"	BT.	9	9
ES519	96	96	6'-8"	ST.	668	668
ES520	242	226	2'-5"	BT.	610	570
ES523	8	8	20'-0"	ST.	167	167
ES524	16		15'-8"	ST.	261	
ES525	24	24	13'-8"	ST.	342	342
ES526		16	10'-8"	ST.		178
TOTALS					5094	4877

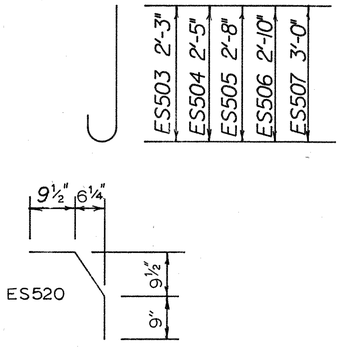
FAI-70-0119L/R

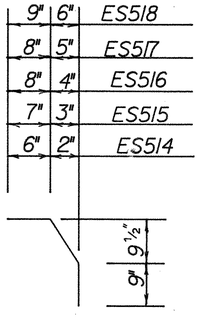
MARK	NO. REQ'D L	NO. REQ'D R	LENGTH	SHAPE	WEIGHT L	WEIGHT R
ES501	272	278	5'-8"	BT.	1608	1643
ES502	48	48	30'-0"	ST.	1502	1502
ES503	4	4	2'-10"	BT.	12	12
ES504	4	4	3'-0"	BT.	13	13
ES505	4	4	3'-3"	BT.	14	14
ES506	4	4	3'-5"	BT.	14	14
ES507	4	4	3'-8"	BT.	15	15
ES508	32	32	4'-4"	ST.	145	145
ES509	28	28	2'-2"	ST.	63	63
ES510	4	4	2'-5"	ST.	10	10
ES511	4	4	2'-7"	ST.	11	11
ES512	4	4	2'-9"	ST.	11	11
ES513	4	4	3'-0"	ST.	13	13
ES514	4	4	1'-11"	BT.	8	8
ES515	4	4	2'-0"	BT.	8	8
ES516	4	4	2'-1"	BT.	9	9
ES517	4	4	2'-1"	BT.	9	9
ES518	4	4	2'-2"	BT.	9	9
ES519	144	144	6'-8"	ST.	1001	1001
ES520	272	278	2'-5"	BT.	686	701
ES525	16	16	13'-8"	ST.	228	228
ES527	8		5'-5"	ST.	45	
ES528		4	7'-8"	ST.		32
ES529		4	9'-10"	ST.		41
ES530	16		7'-9"	ST.	129	
ES531		8	8'-10"	ST.		74
ES532		8	9'-11"	ST.		83
TOTALS					5563	5669

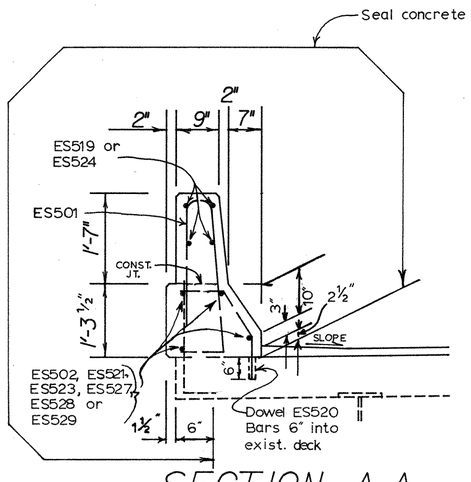
DESCRIPTION	Br. N° FAI-70 0084L	Br. N° FAI-70 0084R	Br. N° FAI-70 0119L	Br. N° FAI-70 0119R	Br. N° LIC-70 0074L	Br. N° LIC-70 0074R	UNITS
Item 510 Dowel holes	188	188	292	298	262	246	Ea
Item 511 Class 'S' conc. superstructure	25	25	38	39	35	33	Cu.Yd.
Item special Sealing of conc. surfaces (epoxy)	198	198	304	310	281	263	Sq. Yd.

BENDING DIAGRAMS



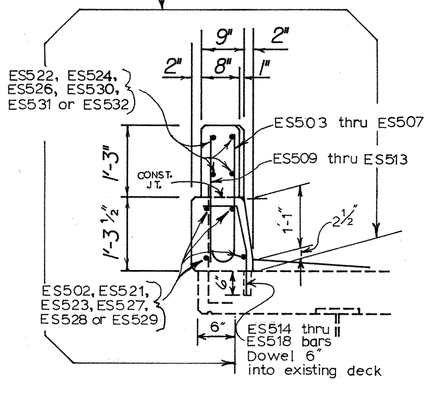






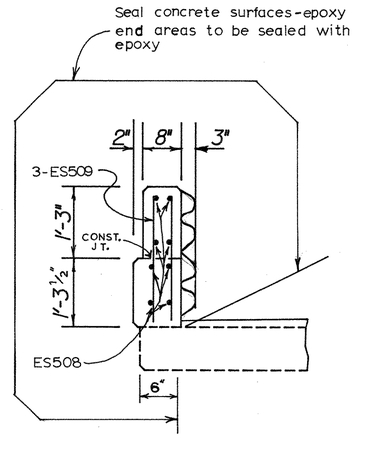
SECTION A-A

(SHEET 113)



SECTION B-B

(SHEET 113)



SECTION C-C

(SHEET 113)

ELEVATION TYPICAL PARAPET REINFORCING

CALCULATED BY Rm DATE 1-15-88
CHECKED BY RJD DATE 1-21-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

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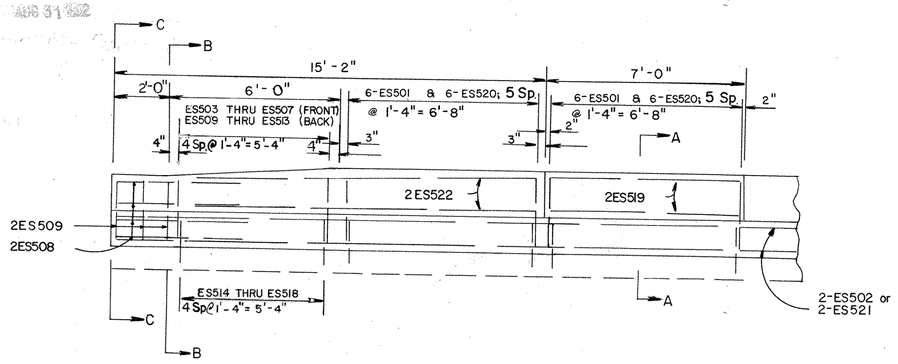
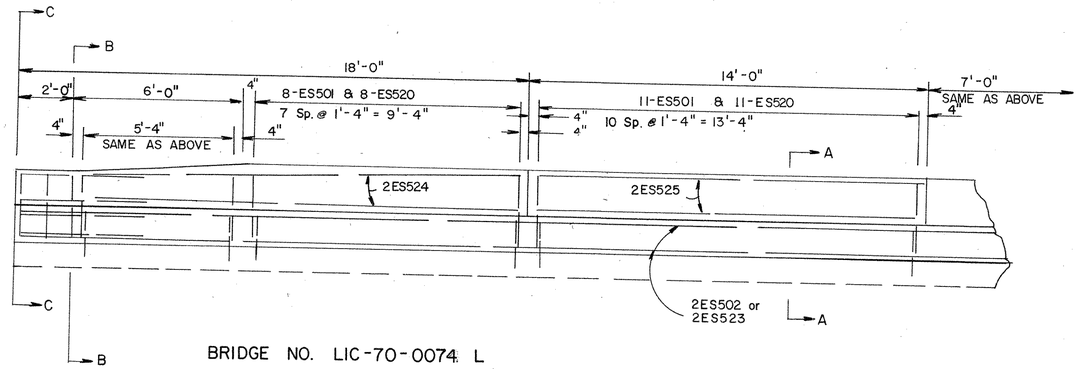
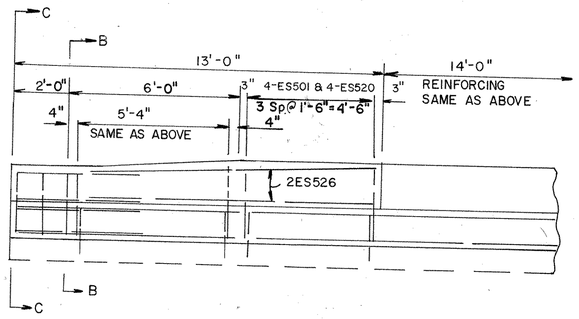
FAI-70-0.00
LIC-70-0.00



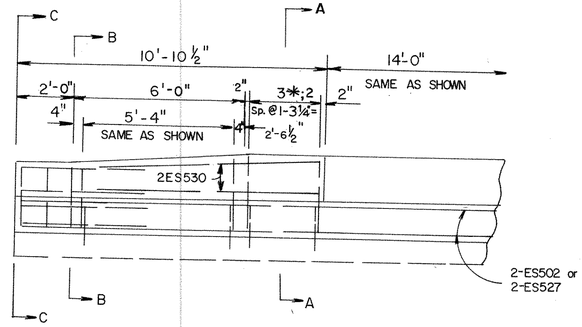
BRIDGE NO. FAI-70-0084 L/R



BRIDGE NO. LIC-70-0074 L



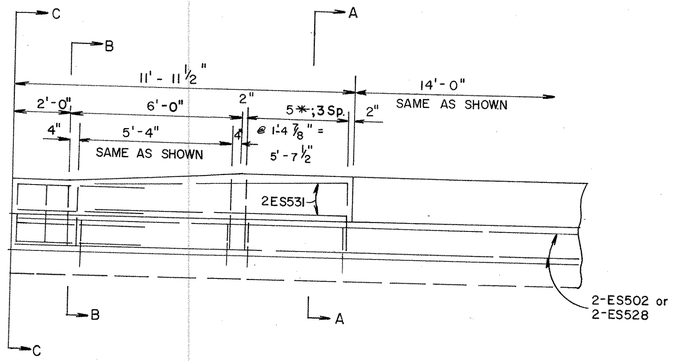
BRIDGE NO. LIC-70-0074 R



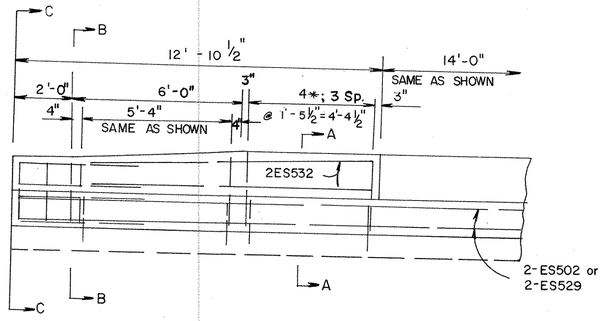
* ES501 & ES520

SEE SHEET 112 FOR
SEC. A-A, B-B, C-C AND
BENDING DIAGRAMS AND REINFORCING
STEEL TABLES.

BRIDGE NO. FAI-70-0119L



BRIDGE NO. FAI-70-0119R
(NORTH PARAPET)



BRIDGE NO. FAI-70-0119R
(SOUTH PARAPET)

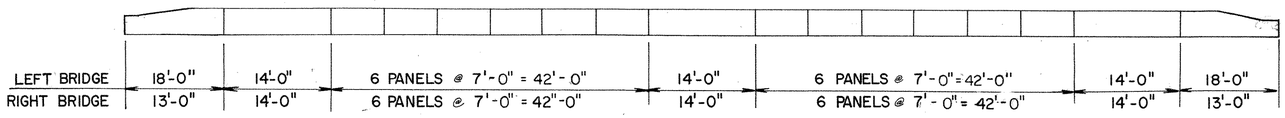
JOINT SPACING FOR BRIDGE RAILING, DEFLECTOR PARAPET TYPE

CALCULATED BY RM DATE 1-15-88
CHECKED BY RDD DATE 1-21-88

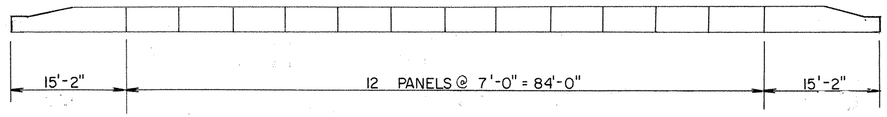
FHWA REGION	STATE	PROJECT	
5	OHIO		

114
126

FAI-70-0.00
LIC-70-0.00



BRIDGE NO. LIC-70-0074 L/R



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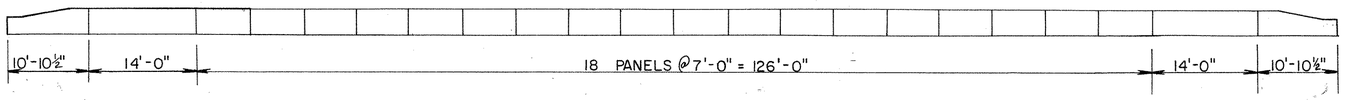
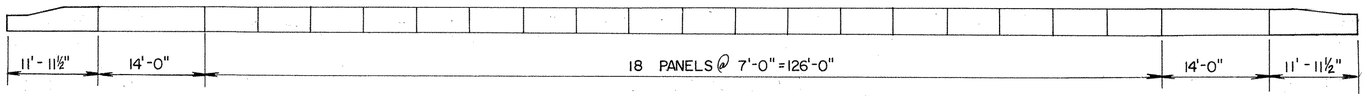
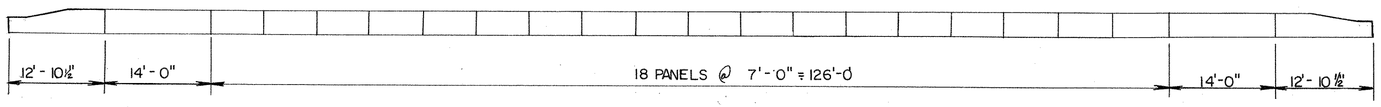


BRIDGE NO. FAI-70-0119L



BRIDGE NO. FAI-70-0119 R
(NORTH PARAPET)



BRIDGE NO. FAI-70-0119 R
(SOUTH PARAPET)

PARAPET DETAILS

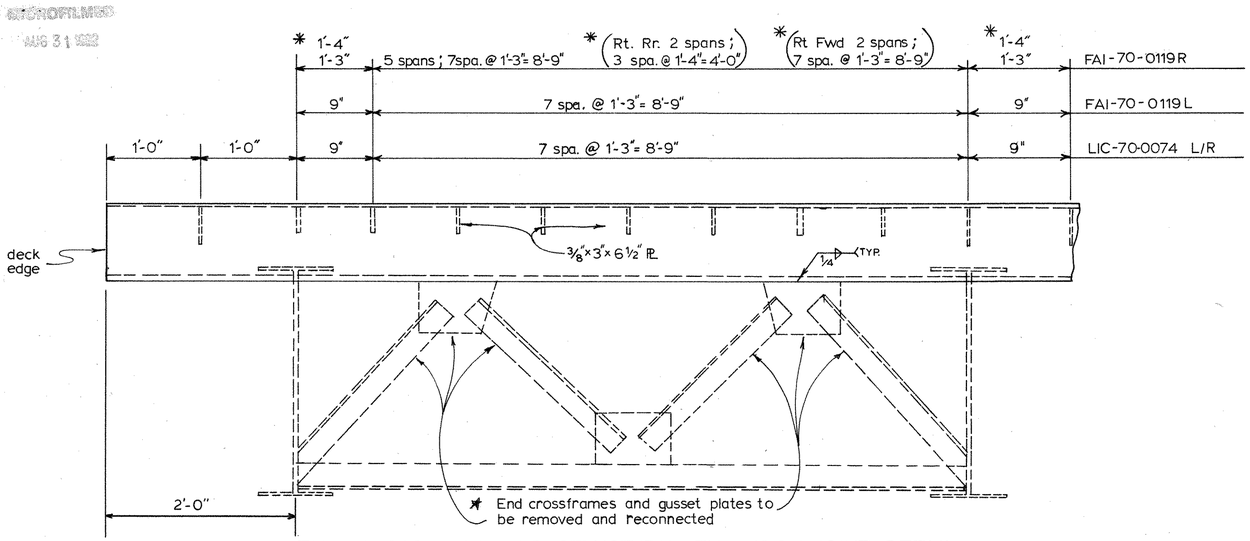
★ Existing end crossframes and gusset plates shall be removed and reconnected to allow new expansion joint armor to be installed. Any cutting of the crossframes or gusset plates shall be as directed by the Engineer to ensure proper installation of the expansion joint armor. An estimated amount of 6568 pounds of Item 513-Structural Steel as Per Plan has been included in the Bridge Summary for removal, replacement and reconnection of any crossframes or gusset plates deemed necessary by the Engineer.

CALCULATED BY Pm DATE 1-15-88
CHECKED BY QDP DATE 1-21-88

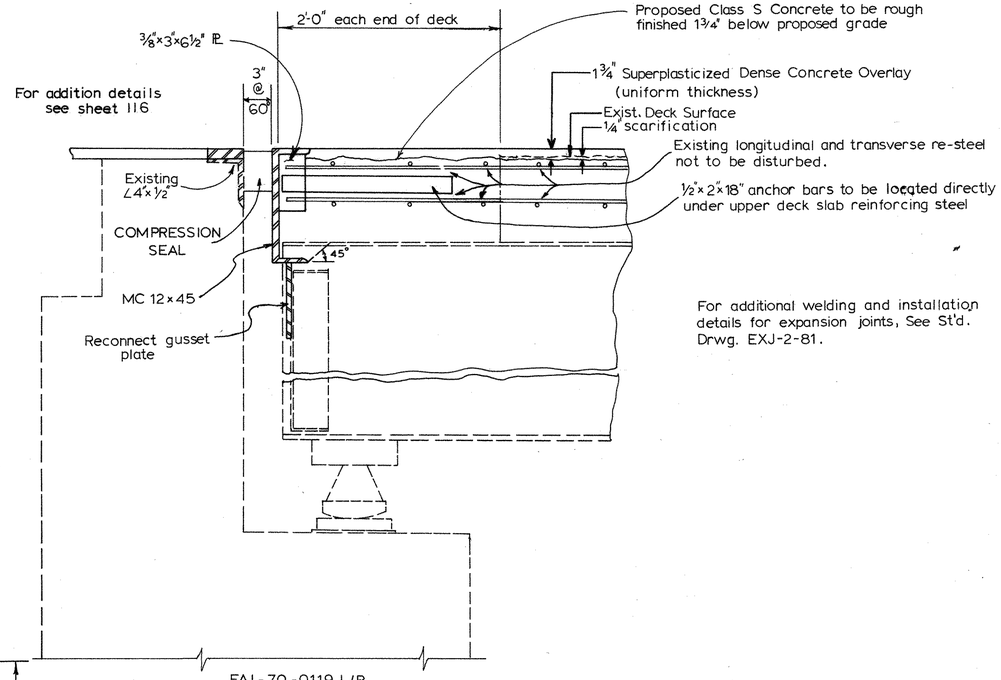
FHWA REGION	STATE	PROJECT	
5	OHIO		

115
126

FAI-70-0.00
LIC-70-0.00

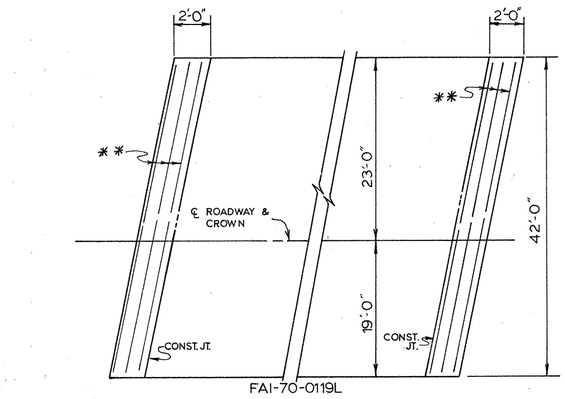


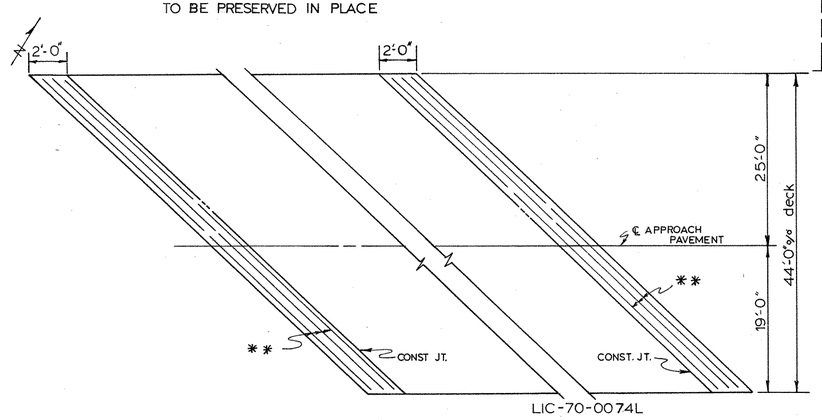
END CROSSFRAME AND STRUCTURAL EXPANSION JOINT DETAIL

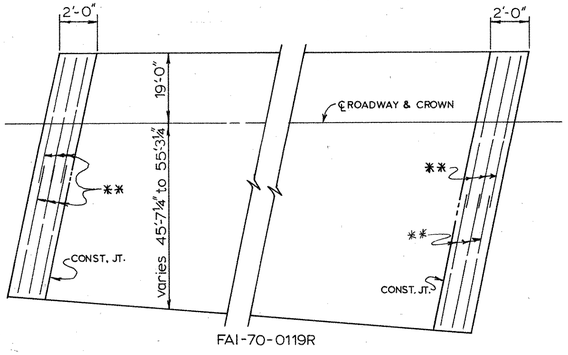


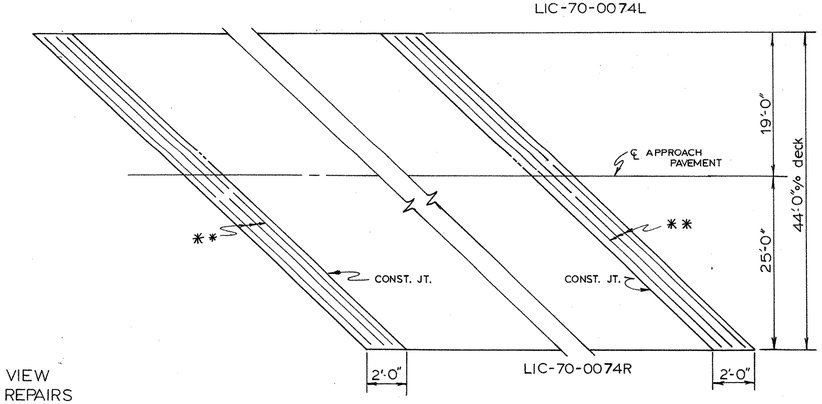
SECTION ON ℄

★★ EXISTING TRANSVERSE RE-STEEL (TOP AND BOTTOM) TO BE PRESERVED IN PLACE









PLAN VIEW
DECK REPAIRS

DESCRIPTION	Br. N° FAI-70 0119L	Br. N° FAI-70 0119R	Br. N° LIC-70 0074L	Br. N° LIC-70 0074R	Units
ITEM 202 Portions of structures removed, superstructure	5	6	7	7	Cu. Yd.
ITEM 511 Class S concrete, superstructure	5	6	7	7	Cu. Yd.
ITEM 513 Structural steel	1391	2395	1391	1391	Pounds

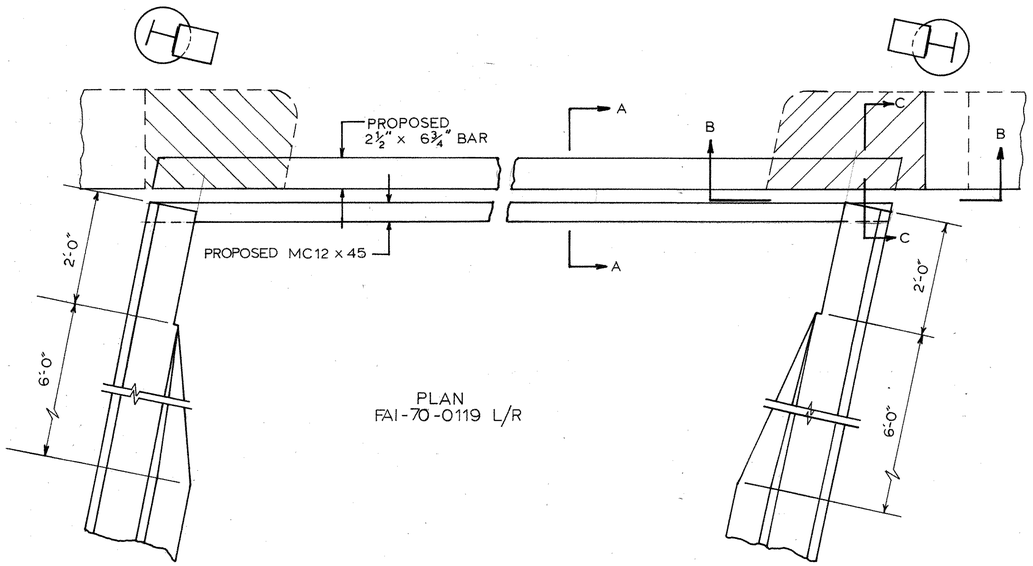
SUPERSTRUCTURE DETAILS

CALCULATED BY Rm DATE 1-15-88
CHECKED BY RSD DATE 1-21-88

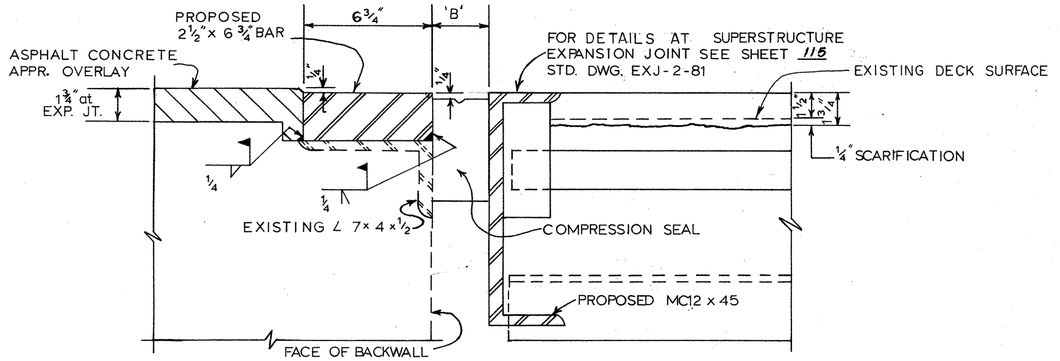
FHWA REGION	STATE	PROJECT	
5	OHIO		

116
126

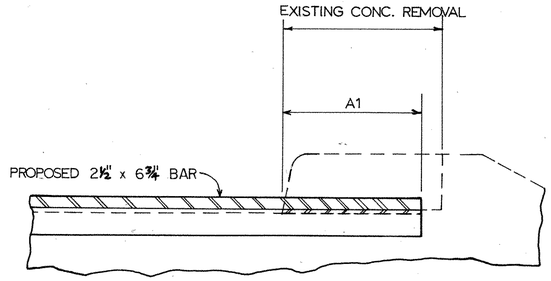
FAI-70-0.00
LIC-70-0.00



PLAN
FAI-70-0119 L/R

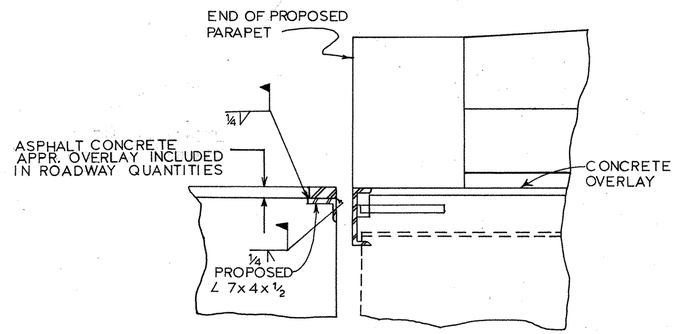


SECTION A-A

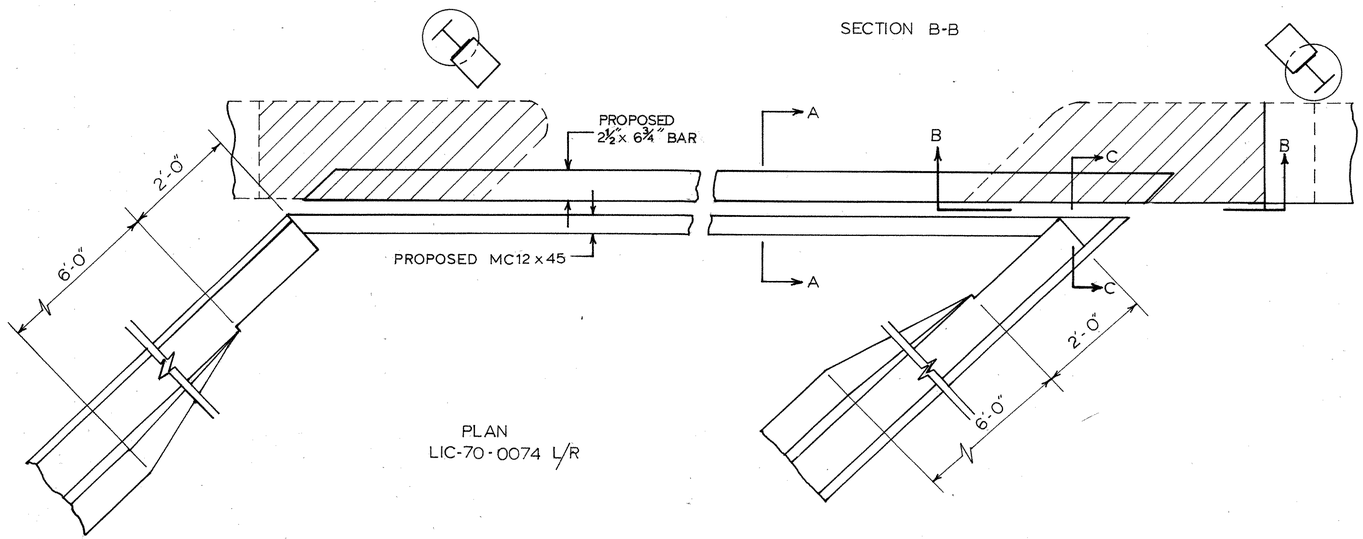


SECTION B-B

AMBIENT TEMP F°	DIMENSION 'B'			
	FAI-70-0119 L/R		LIC-70-0074 L/R	
	REAR	FWD	REAR	FWD
90	3¼"	3¼"	3¼"	3¾"
80	3 3/16"	3 3/16"	3 3/16"	3 1/4"
70	3⅛"	3⅛"	3⅛"	3⅛"
60	3"	3"	3"	3"
50	2⅞"	2⅞"	2⅞"	2⅞"
40	2 13/16"	2 13/16"	2 13/16"	2¾"
30	2¾"	2¾"	2¾"	2 5/8"



SECTION C-C



PLAN
LIC-70-0074 L/R

BRIDGE NUMBER	ANGLE LT. RR. ABUT.	ANGLE RT. RR. ABUT.	ANGLE LT. FWD. ABUT.	ANGLE RT. FWD. ABUT.	DIM A-1	CONCRETE REMOVALS				EXPANSION JOINT PAY LENGTH	
						LT. RR.	RT. RR.	LT. FWD.	RT. FWD.	RR.	FWD.
FAI-70-0119 L	12°	12°	12°	12°	2'-2"	2'-9"	3'-0"	3'-0"	2'-7"	43'-0"	43'-0"
FAI-70-0119 R	12°	12°	12°	12°	2'-2"	2'-7"	2'-9"	2'-9"	2'-10"	66'-1"	75'-11"
LIC-70-0074 L	46°25'30"	46°25'30"	46°25'30"	46°25'30"	3'-1"	6'-6"	2'-6"	3'-11"	5'-2"	60'-11"	60'-11"
LIC-70-0074 R	46°25'30"	46°25'30"	46°25'30"	46°25'30"	3'-1"	5'-2"	3'-11"	2'-6"	6'-6"	60'-11"	60'-11"

ESTIMATED LENGTH: CONTRACTOR SHALL VERIFY ACTUAL LENGTH NEEDED
LEGEND RR - REAR
FWD - FORWARD

EXPANSION JOINT DETAILS

CALCULATED BY RM DATE 1-15-88
CHECKED BY RJD DATE 1-21-88

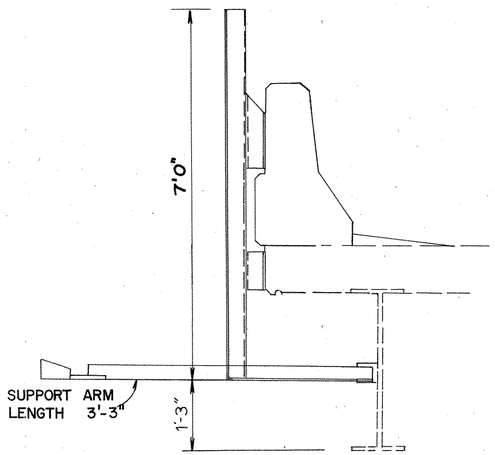
FHWA REGION	STATE	PROJECT	
5	OHIO		

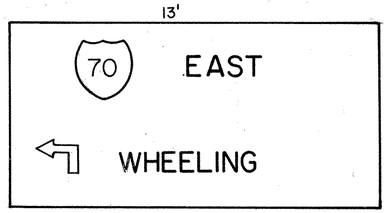
117/126

FAI-70-0.00
LIC-70-0.00

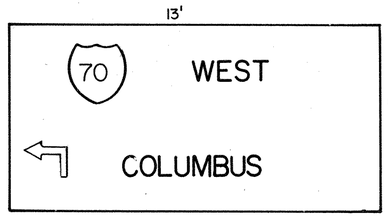
BRIDGE NO. FAI.-70 0119 L	BRIDGE NO. FAI.-70 0119 R			ITEM	QUANT.	UNIT	DESCRIPTION
845	845			630	169	SQFT.	SIGNS, EXTRUSHEET, TYPE G
1	1			630	2	EACH	OVERPASS STRUCTURE MOUNTED SIGN SUPPORT, TYPE TC-18.24
1	1			630	2	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND STORAGE
1	1			630	2	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND STORAGE, TYPE TC-1824
1	1			631	2	EACH	SIGNS WIRED, OVERPASS STRUCTURE MOUNTED
2	2			631	4	EACH	MERCURY VAPOR LUMINAIRE, TYPE TC-31.21, WITH 175-WATT LAMP
2	2			631	4	EACH	REMOVAL OF LUMINAIRE AND STORAGE

QUANTITIES CARRIED TO SHEET 49





6.5' (INCLUDES 6" GLARE SHIELD)
LEVEL II



6.5' (INCLUDES 6" GLARE SHIELD)
LEVEL II

FAI-70-0119 L

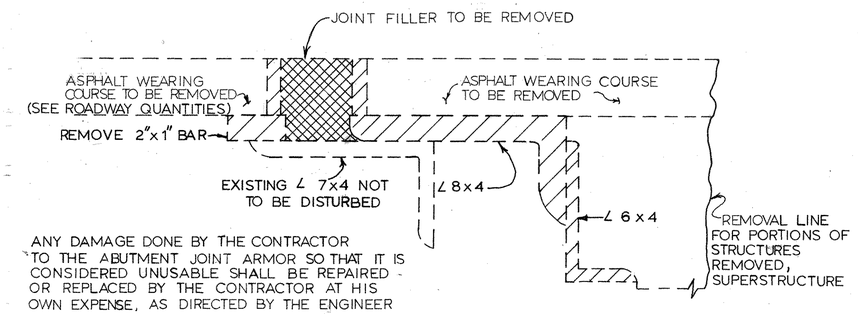
FAI-70-0119 R

TC-18.24

SIGN BRACKET SPACING

6", 72", 72", 6",

MOUNT SIGNS HORIZONTALLY IN THE APPROXIMATE LOCATION OF THE EXISTING SIGNS. THEY MAY BE MOVED SLIGHTLY TO ALLOW FOR THE INSERTION OF THE EXPANSION ANCHOR BOLTS.



ANY DAMAGE DONE BY THE CONTRACTOR TO THE ABUTMENT JOINT ARMOR SO THAT IT IS CONSIDERED UNUSABLE SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE, AS DIRECTED BY THE ENGINEER

ITEM 202 - PORTIONS OF EXPANSION JOINTS REMOVED, AS PER PLAN.

CARE SHALL BE TAKEN IN THE REMOVAL OF THE EXISTING 2"x1" EDGE BARS, VERTICAL EXTENSION BARS, ∠ 8x4; ∠6x4 & JOINT FILLER SO AS NOT TO DAMAGE THE EXPANSION JOINT ARMOR ANGLE AT THE ABUTMENT.

THE BARS SHALL BE REMOVED BY FLAME CUTTING FROM THE END FINISH AND DISPOSED OF BY THE CONTRACTOR. THE SURFACE OF THE END FINISH SHALL BE LEFT FREE OF ANY ROUGH AREAS. THE ENGINEER SHALL DETERMINE IF THE END FINISH IS SMOOTH ENOUGH TO ENSURE PROPER INSTALLATION OF THE NEW 2½"x 6¾" BARS. SEE DETAIL ON SHEET 116.

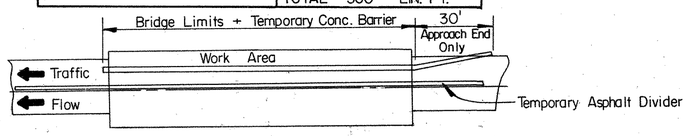
PAYMENT SHALL BE AT THE CONTRACT PRICE BID FOR 436 LIN. FT. OF ITEM 202-PORTIONS OF EXPANSION JOINTS REMOVED, AS PER PLAN WHICH SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO REMOVE THE LISTED PARTS.

DESCRIPTION	Br. N° FAI-70 0119L	Br. N° FAI-70 0119R	Br. N° LIC-70 0074L	Br. N° LIC-70 0074R	UNITS
ITEM 202 PORTIONS OF EXPANSION JOINTS REMOVED, AS PER PLAN	78	138	110	110	LIN.FT.

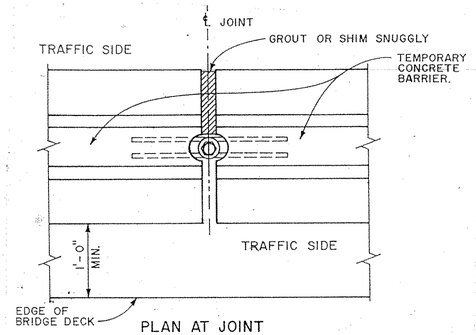
ITEM 622 - TEMPORARY CONCRETE BARRIER *BRIDGE MOUNTED*

THE CONTRACTOR SHALL INSTALL THE BARRIER AS PER STD. DRAWING MC-9A. THE QUANTITY SHALL ALSO INCLUDE REMOVING AND REUSING THE BARRIER AS SHOWN IN PHASES 1A & 2A. AFTER THE PROJECT HAS BEEN COMPLETED THE BARRIER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED BY HIM. ANCHORING OF ALL TEMPORARY CONCRETE BARRIER A.P.P. 2, LOCATED ON THE BRIDGES, SHALL NOT BE REQUIRED. CONNECTIONS OF THE PARAPETS SHALL BE DONE BY USING 1¼" x 27" DIA. HIGH STENGTH BOLTS THREADED 8" ON EACH END. PAYMENT FOR BOLTS, NUTS, WASHERS, LABOR, MATERIALS AND INCIDENTALS SHALL BE INCLUDED IN ITEM 622 TEMPORARY CONCRETE BARRIER *BRIDGE MOUNTED* QUANTITIES SHOWN ARE CARRIED IN THE GENERAL SUMMARY ON SHT. 48

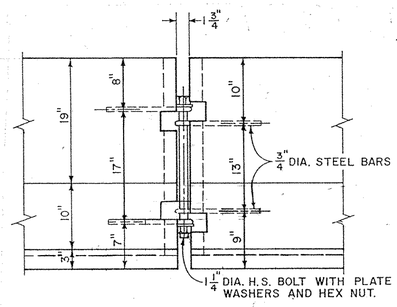
FAI.-70-0084 L/R	150	LIN. FT.
FAI.-70-0119 L/R	210	LIN. FT.
	TOTAL 360	LIN. FT.



CONCRETE BARRIER DETAIL

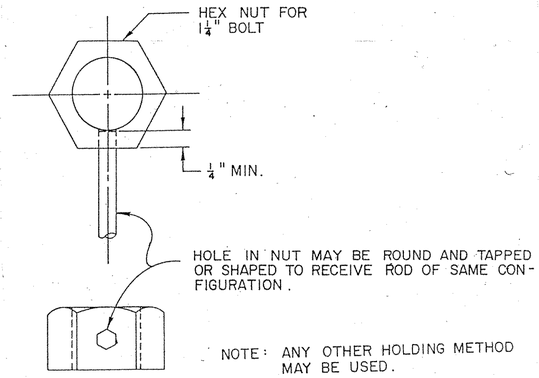


PLAN AT JOINT



ELEVATION AT JOINT

MODIFIED BARRIER



EXAMPLE OF METHOD FOR HOLDING NUT DURING THREADED ROD INSTALLATION

Br. № FAI-70-0119 L/R

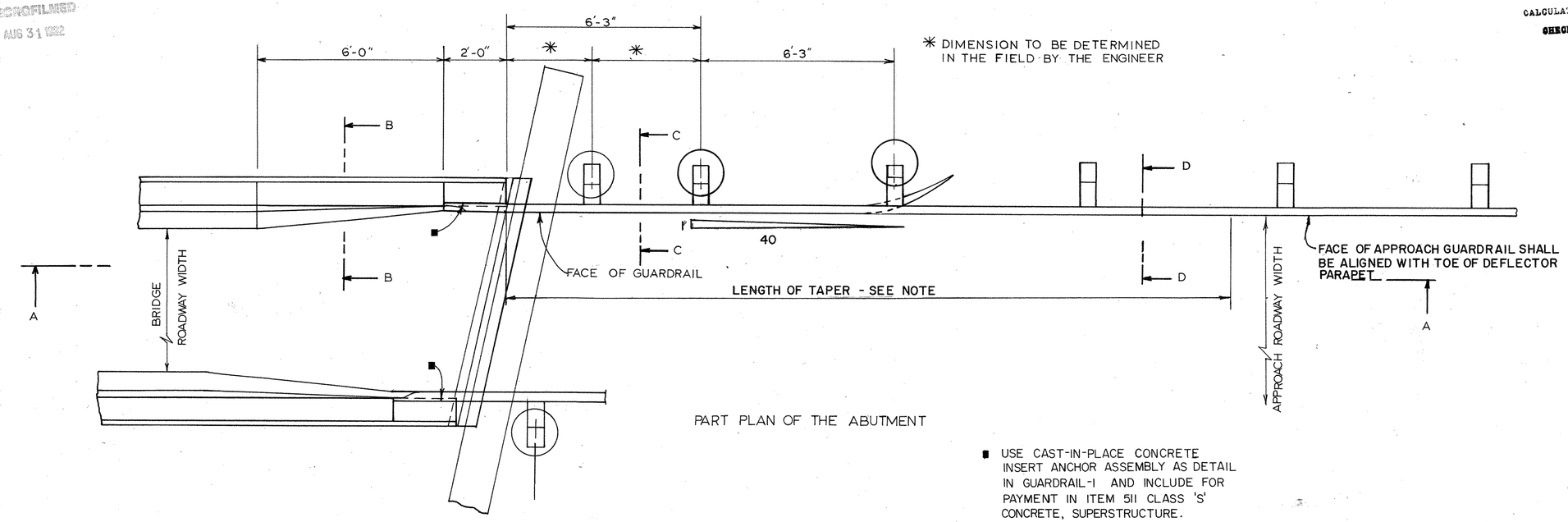
EXPANSION JOINT & SIGN DETAILS

CALCULATED BY Ram DATE 1-15-88
CHECKED BY R.S.D. DATE 1-21-88

FHWA REGION	STATE	PROJECT	
5	OHIO		

118
126

FAI-70-0.00
LIC-70-0.00



* DIMENSION TO BE DETERMINED IN THE FIELD BY THE ENGINEER

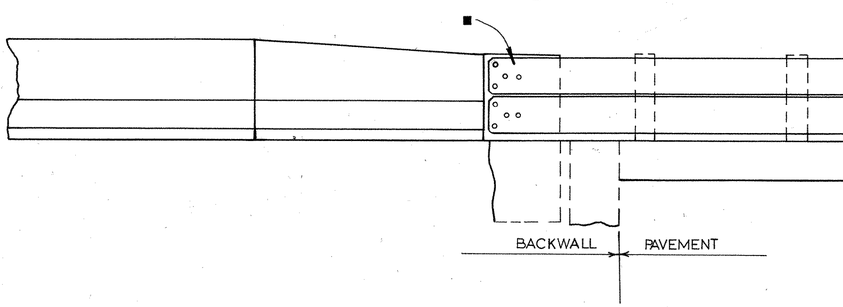
PART PLAN OF THE ABUTMENT

■ USE CAST-IN-PLACE CONCRETE INSERT ANCHOR ASSEMBLY AS DETAIL IN GUARDRAIL-1 AND INCLUDE FOR PAYMENT IN ITEM 511 CLASS 'S' CONCRETE, SUPERSTRUCTURE.

REFERENCE: FOR ADDITIONAL DETAILS AND DETAILS NOT SHOWN, SEE STANDARD DRAWINGS BR-1, GR-1, GR-2B, GR-3, & GR-7.

NOTE: ALL HOLES IN THE FIRST APPROACH GUARDRAIL PANEL ADJACENT TO THE BRIDGE SHALL BE SLOTTED ¾" x 2½" AND BOLTS SHALL BE TIGHTENED AS SPECIFIED FOR EXPANSION JOINTS AS PER 606.05.

TAPER: The 40:1 taper shown is desirable. However, any taper 25:1 or flatter is acceptable. The length of taper will vary depending on the rate of taper and the alignment of the approach guardrail with respect to the toe of the parapet.



SECTION A-A

ITEM 518-VERTICAL EXTENSION OF DOWNSPOUTS, AS PER PLAN

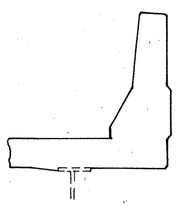
DOWNSPOUT EXTENSION SHALL BE ⅜" THICK GALVANIZED STEEL PIPE. JOINT CONNECTIONS SHALL BE WELDED AS REQUIRED BY 513.17. GALVANIZING SHALL BE IN ACCORDANCE WITH 711.02. ALL MATERIALS, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK SHALL BE PAID FOR UNDER ITEM 518-VERTICAL EXTENSION OF DOWNSPOUTS, AS PER PLAN. PAINTING OF THE VERTICAL EXTENSION AND DAMAGED AREAS SHALL BE INCLUDED IN ITEM 518 AT THE CONTRACTORS EXPENSE. PAINTING SHALL BE ACCORDING TO 514 SYSTEM B. FINISH PAINT SHALL BE 708.08. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 518-VERTICAL EXTENSION OF DOWNSPOUTS, AS PER PLAN.

ITEM 518-VERTICAL EXTENSION OF SCUPPERS, AS PER PLAN

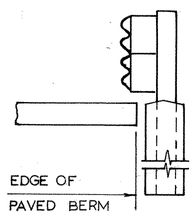
WORK PERFORMED UNDER THIS ITEM SHALL CONSIST OF THE FURNISHINGS AND INSTALLATION OF VERTICAL EXTENSIONS TO EXISTING SCUPPERS IN THE BRIDGE DECKS AS DETAILED ABOVE AND IN ACCORDANCE WITH SECTION 518.06 OF THE SPECIFICATIONS AND REPLACING ANY CONCRETE REMOVED FOR INSTALLATION OF THE VERTICAL EXTENSION OF SCUPPERS. ACTUAL DIMENSION OF THE EXTENSIONS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD. THE EXTENSIONS SHALL BE WELDED TO THE EXISTING SCUPPERS BEFORE THE DECK IS OVERLAYED.

THE MATERIAL UTILIZED FOR THE EXTENSIONS MAY BE WELDABLE GRADE OF LOW OR MILD CARBON STEEL AVAILABLE COMMERCIALLY. THIS MATERIAL IS TO BE EXCLUDED FROM THE REQUIREMENTS OF GALVANIZING ACCORDING TO 711.02 AND FROM THE MILL TEST REPORTS ACCORDING TO 501.07.

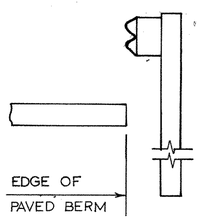
PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 518-VERTICAL EXTENSIONS OF SCUPPERS, AS PER PLAN.



SECTION B-B

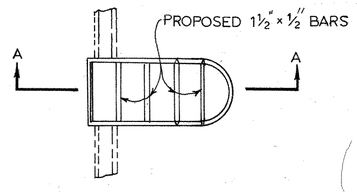


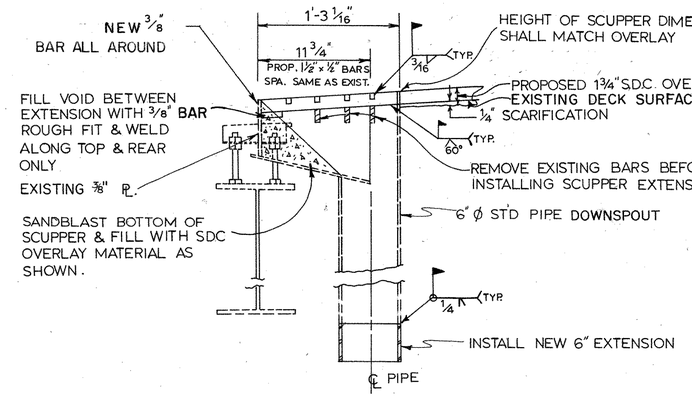
SECTION C-C



SECTION D-D

DESCRIPTION	Br. N° FAI70 0084 L	Br. N° FAI-70 0084 R	Br. N° FAI-70 0119 L	Br. N° FAI-70 0119 R	Br. N° LIC-70 0074 L	Br. N° LIC-70 0074 R	TOTAL
ITEM 518 VERTICAL EXTENSION OF DOWNSPOUTS, AS PER PLAN	10	10	8	12	8	8	56
ITEM 518 VERTICAL EXTENSION OF SCUPPERS, AS PER PLAN	10	10	8	12	8	8	56





SECTION A-A

VERTICAL EXTENSION OF SCUPPER & DOWNSPOUT

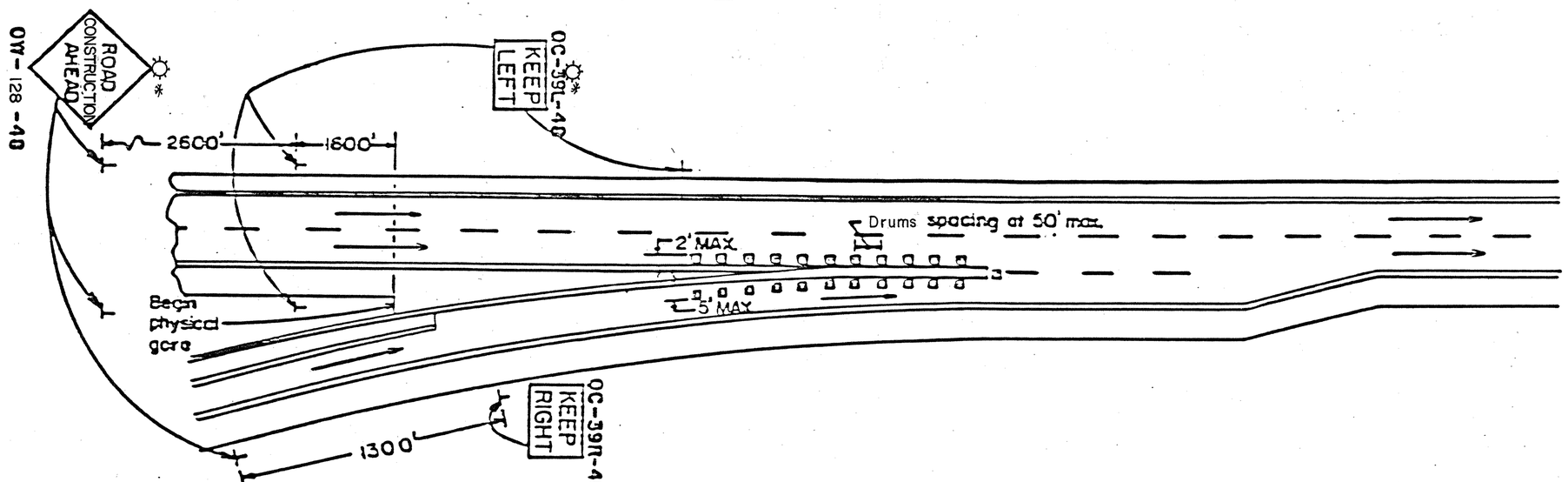
CALC. BY D.M
DATE 2-29-88
CHECK. BY QM
DATE 3-4-88

FAI-70-0.00
LIC-70-0.00

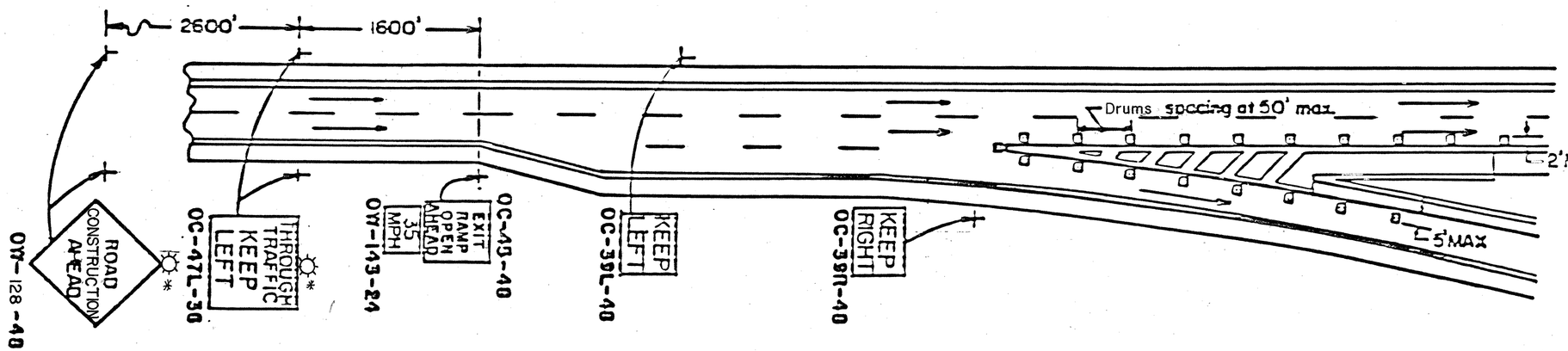
FED. ROI DIVISION	STATE	PROJECT	
5	OHIO		

PLAN NO.

ENTRANCE GORE TRAFFIC CONTROL



EXIT GORE TRAFFIC CONTROL



GENERAL NOTE

1. THE REQUIREMENTS OF THE "TRAFFIC CONTROL FOR LONG LINE PAVEMENT MARKING OPERATIONS" Std. Drwg. MT-99.20 SHALL APPLY IN LIEU OF THIS DETAIL WHERE EDGE LINES AND/OR CHANNELIZING LINES ARE SPRAYED IN MOVING OPERATIONS SEPARATE FROM ANY OTHER WORK.
2. WHERE THE WORK IN THE GORE AREA REQUIRES MORE POSITIVE TRAFFIC CONTROL OR OVERNIGHT WORK AREA PROTECTION, THE TRAFFIC CONTROL FOR "LANE CLOSURE AT THE ENTRANCE RAMP" OR "LANE CLOSURE AT EXIT GORE" SHOULD BE EMPLOYED. ~~322 342TT~~ 122-124.
3. THE SPACING BETWEEN SIGNS SHOWN ON THIS DETAIL MAY BE ADJUSTED (INCREASED OR DECREASED) WITH THE APPROVAL OF THE ENGINEER TO POSITION THEM NO CLOSER THAN 200 FEET TO EXISTING SIGNS WHICH MUST REMAIN IN USE.
4. AT AN ISOLATED ENTRANCE GORE AREA, A FLASHING ARROW PANEL CONFORMING TO REQUIREMENTS IN STD. DRWG. TC-35.10 MAY BE SUBSTITUTED FOR THE ADVANCE OC-39-48 SIGNS.
5. AT AN INTERCHANGE WHERE BOTH EXITS AND ENTRANCES ARE MARKED WITH TRAFFIC CONTROL IN PLACE AT THE SAME TIME, THE OW-128-48 SIGN ON THE ENTRANCE RAMP IS NOT REQUIRED.
- * 6. FOR NIGHT CLOSURES. SIGNS SHALL BE LIGHTED USING TYPE A FLASHING BARRICADE WARNING LIGHT.
7. Cones may be substituted for drums during daylight hours only.

OHIO DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL FOR WORK IN GORE AREAS	DATE 1/81
DR JDL CK. CDR	

Rev. EEF PM 10/85

PAVEMENT MARKING TYPICAL DETAILS

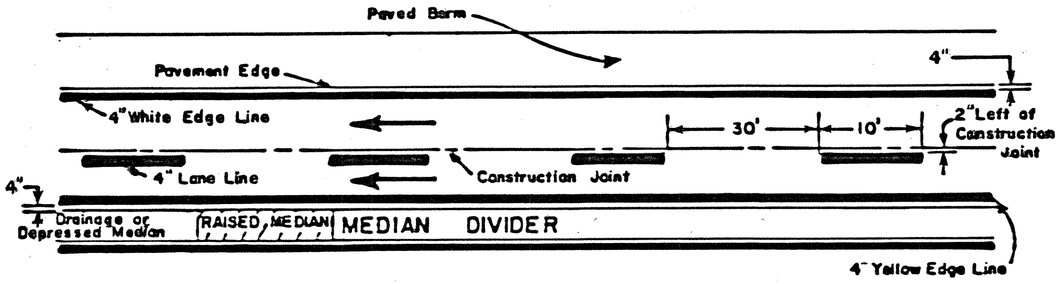
FED.RD DIV.	STATE	PROJECT	
5	OHIO	.	

120
126

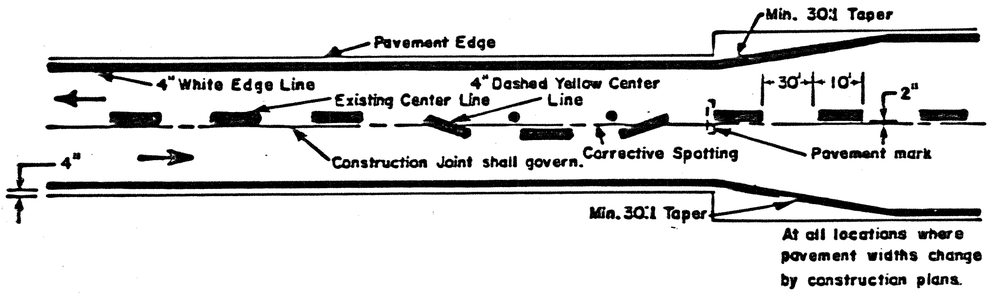
CALC. BY D.M
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

PLAN NO.
FAI-70-0.00
LIC-70-0.00

FREEWAY & EXPRESSWAY MAINLINE MARKINGS

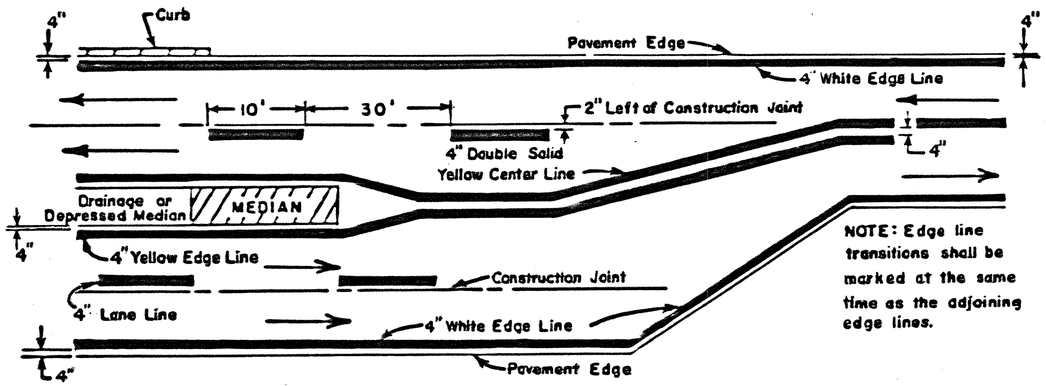


TWO LANE MARKINGS



At all locations where pavement widths change by construction plans.

MULTILANE DIVIDED & UNDIVIDED HIGHWAY MARKINGS



NOTE: Edge line transitions shall be marked at the same time as the adjoining edge lines.

NOTES:

1. THE DISTANCE FROM THE PAVEMENT EDGE TO THE NEARSIDE EDGE OF THE EDGELINE MAY BE INCREASED WITH THE APPROVAL OF THE ENGINEER IN ORDER TO MAINTAIN UNIFORM LANE WIDTH.
2. SEE TC 72.20 FOR PAVEMENT ENTRANCE AND EXIT RAMP TERMINALS.

OHIO DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING TYPICAL DETAILS	DATE 11/80
JDL - CDR	

12/81

38-2

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

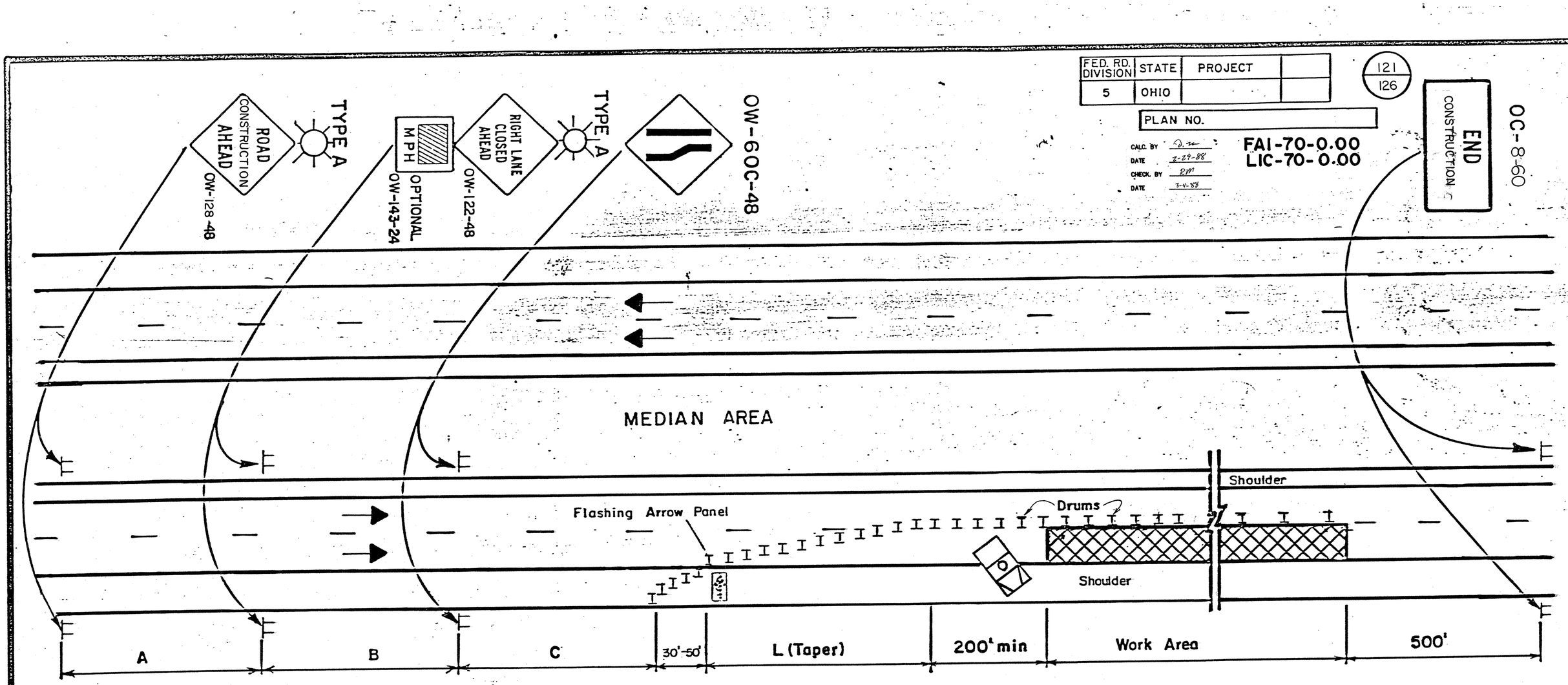
121
126

PLAN NO.

CALC. BY D.M
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

FAI-70-0.00
LIC-70- 0.00

OC-8-60



GENERAL NOTES:

1. The taper length (L) shall be in accordance with Section 7F-17 of the OMUTCD. The location of the transition taper and location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment. In order to determine the minimum number of channelizing devices for the transition taper see Table 7-5 OMUTCD. For a 55 MPH prevailing speed and a 12 ft. lane, not less than thirteen (13) drums shall be used to form the lane transition taper in advance of the work area. Not less than five (5) drums shall be used to form the taper on the shoulder. Drums shall be spaced approximately 50' to 60' center to center for the first 1000 feet of the work area and at a maximum of 100 to 120 feet for the balance of the work area.

2. The major standard level warning sign sizes may be used on divided streets or highways that are not classified as freeways or expressways.

3. When work is being performed in the lane adjacent to the median on a divided highway an OW-123-48 sign(s) shall be substituted for the OW-122-48 sign(s) and an OW-60D-48 sign(s) shall be substituted for the OW-60C sign(s).

4. The work vehicle shown at the beginning of the work area shall be in place and unoccupied whenever workers are in the work area. This work vehicle shall be removed from the pavement whenever workers are not in the work area. Other protective devices may be used in lieu of the work vehicle shown when approved by the Engineer. The vehicle shall be equipped with a 360° rotating or flashing amber beacon clearly visible in all directions a minimum of ¼ mile.

5. The flashing arrow panel shall meet requirements contained in Std. Drwg. TC-35.10

6. Type C steady burning barricade warning lights shall be erected on all drums for night lane closures.

MINIMUM DISTANCE	A	B	C
MAJOR STANDARD	500'	500'	500'
URBAN FREEWAY & EXPRESSWAY	500' TO 1000'	500' TO 1000'	500' TO 1000'
RURAL FREEWAY & EXPRESSWAY	2600'	1600'	1000'

7. Type A flashing barricade warning lights shown on the "Road Const. Ahead" and the "Right Lane Closed Ahead" signs are required whenever a night lane closure is necessary.

8. Some work area locations may require more than just static or conventional signs to enhance communication with the driver. At these locations Portable Changeable Message Signs (PCMS) units are recommended. These devices should be located approximately 2000-4000 ft. in advance of a lane closure or other point of required action. See Section 7G-8.1, OMUTCD for further guidance on use of PCMS units.

OHIO DEPARTMENT OF TRANSPORTATION

CLOSING ONE LANE OF A FOUR LANE DIVIDED HIGHWAY

DATE 2/82

71-1a

Rev. EEF 9/84

FAI-70-0.00
LIC-70-0.00

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

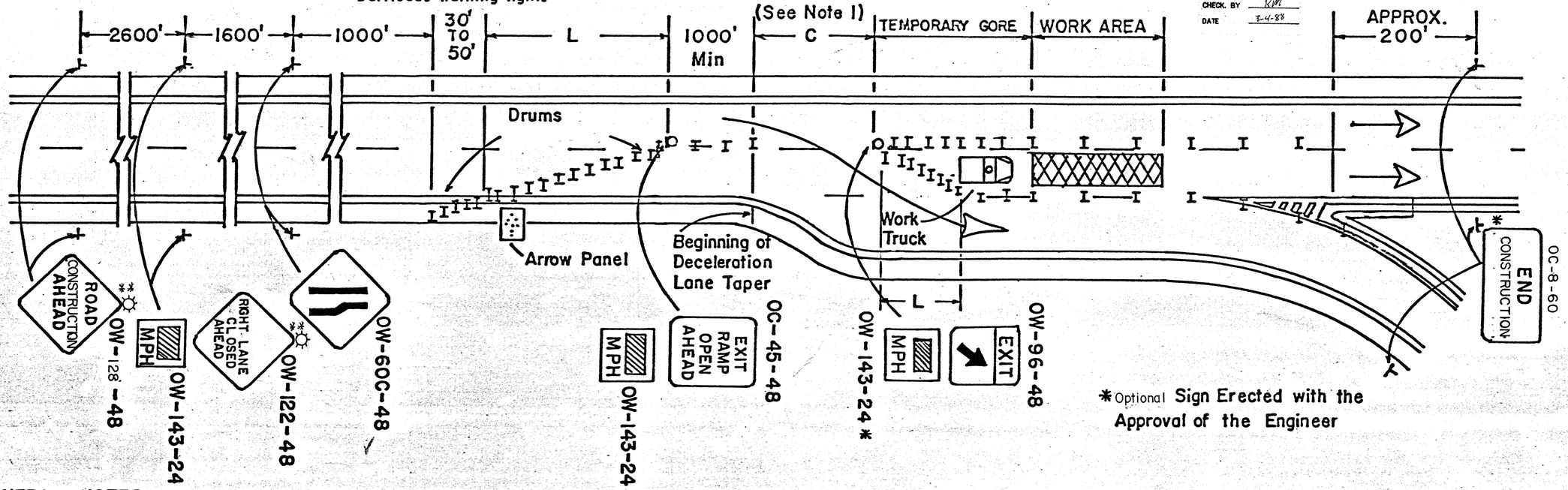
CALC. BY D.M
DATE 2-29-88
CHECK. BY RM
DATE 3-4-88

PLAN NO.

*11. For night closures, each of the first two signs in the sequence (ROAD CONSTRUCTION AHEAD and RIGHT LANE CLOSED AHEAD) is required to be supplemented by a Type A flashing barricade warning light.

⊕12. Work vehicles shall be equipped with a 360° rotating or flashing amber beacon clearly visible a minimum of 1/4 mile.

(See Note 8)



*Optional Sign Erected with the Approval of the Engineer

GENERAL NOTES

1. THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL ONLY BE USED WHEN THE DISTANCE "C" IS 100 FEET OR GREATER. WHEN "C" IS LESS THAN 100 FEET, THE TRAFFIC CONTROL SHOWN ON THE "LANE CLOSURE BEFORE EXIT GORE" DETAIL SHOULD BE USED, OR THE EXIT SHOULD BE CLOSED, OR THE TRAFFIC CONTROL ON THIS DRAWING MAY BE USED WITH APPROVAL OF THE ENGINEER. WHEN THE EXIT IS CLOSED, APPROPRIATE DETOUR SIGNS SHALL BE PROVIDED.

2. WHEN WORK IS BEING PERFORMED IN ONLY THE LANE ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY, REFER TO THE TYPICAL WORK AREA TRAFFIC CONTROL SHOWN IN FIGURE C-21 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

3. THE WORK TRUCK SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THIS TRUCK SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK TRUCK SHOWN WHEN APPROVED BY THE ENGINEER. A TRUCK MOUNTED IMPACT ATTENUATOR MAY BE EMPLOYED.⊕

4. THE FLASHING ARROW PANEL SHALL BE IN ACCORDANCE WITH STD. DRWG. TC-35.10.

5. THIRTEEN (13) DRUMS SHALL BE USED TO FORM THE LANE TRANSITION TAPER IN ADVANCE OF THE WORK AREA. FIVE (5) CHANNELIZING DEVICES SHALL BE USED TO FORM THE TAPER ON THE SHOULDER. DRUMS SHALL BE SPACED AT 50 FOOT CENTERS.

6. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON ALL DRUMS FOR NIGHT LANE CLOSURES.

7. TAPER FORMULAE:

   $L = S \times W$ FOR SPEEDS OF 45 OR MORE.
   $L = WS^2/60$ FOR SPEEDS OF 40 OR LESS.

   WHERE:

   L = MINIMUM LENGTH OF TAPER.
   S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85 PERCENTILE SPEED.
   W = WIDTH OF OFFSET.

8. WHEN CREATING A TEMPORARY GORE, CHANNELIZING DEVICES SHOULD BE SPACED 25' CENTER TO CENTER SO AS TO CREATE A "SOLID GORE" EFFECT.

9. THE SPACINGS BETWEEN CONSTRUCTION AND MAINTENANCE SIGNS SHOWN ON THIS DETAIL MAY REQUIRE ADJUSTMENTS (INCREASES OR DECREASES) TO ASSURE THAT THEY ARE POSITIONED NO CLOSER THAN 200 FEET TO EXISTING SIGNS AS DETERMINED BY THE ENGINEER.

7K-4

OHIO DEPARTMENT OF TRANSPORTATION

LANE CLOSURE AT EXIT GORE

DATE 8-3-79

Rev. EEF 9/84

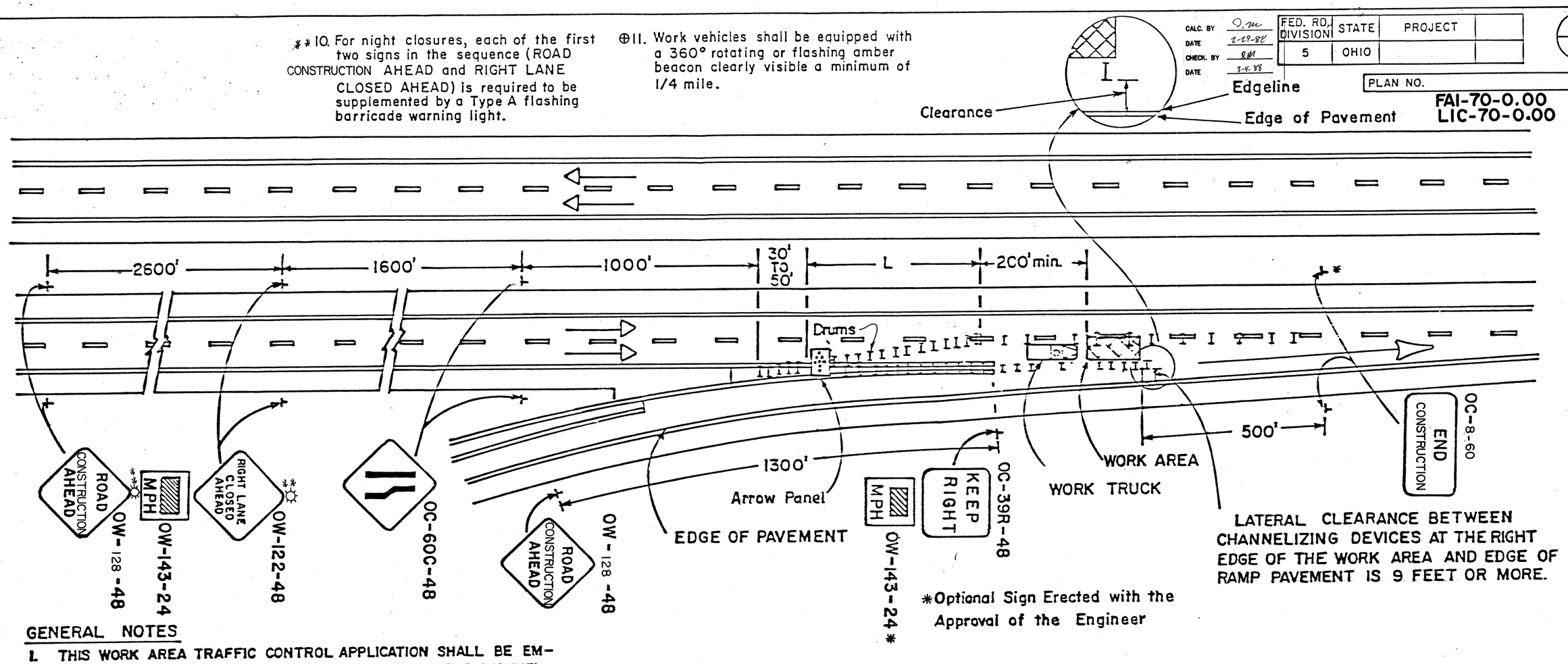
CALC. BY	O.M.	FED. RD. DIVISION	STATE	PROJECT	
DATE	2-29-88	5	OHIO		
CHECK. BY	R.M.				
DATE	3-4-88				

PLAN NO.

FAI-70-0.00
LIC-70-0.00

**10. For night closures, each of the first two signs in the sequence (ROAD CONSTRUCTION AHEAD and RIGHT LANE CLOSED AHEAD) is required to be supplemented by a Type A flashing barricade warning light.

⊕11. Work vehicles shall be equipped with a 360° rotating or flashing amber beacon clearly visible a minimum of 1/4 mile.



LATERAL CLEARANCE BETWEEN CHANNELIZING DEVICES AT THE RIGHT EDGE OF THE WORK AREA AND EDGE OF RAMP PAVEMENT IS 9 FEET OR MORE.

*Optional Sign Erected with the Approval of the Engineer

GENERAL NOTES

1. THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL BE EMPLOYED WHEN THE LATERAL CLEARANCE BETWEEN THE CHANNELIZING DEVICES AT THE RIGHT EDGE OF THE WORK AREA AND THE EDGE OF THE RAMP PAVEMENT IS 9 FEET OR MORE. WHEN THE CLEARANCE IS LESS THAN 9 FEET, THE TRAFFIC CONTROL ON "LANE CLOSURE AT ENTRANCE RAMP: PLAN B" SHOULD BE USED, OR THE RAMP SHOULD BE CLOSED, OR ALLOWING RAMP TRAFFIC TO USE THE BERM SHOULD BE CONSIDERED PROVIDED THE OPERATION IS "SHORT" IN DURATION. WHEN THE RAMP IS CLOSED, APPROPRIATE DETOUR SIGNS SHALL BE PROVIDED.

2. THIRTEEN (13) DRUMS SHALL BE USED TO FORM THE LANE TRANSITION TAPER IN ADVANCE OF THE WORK AREA. FIVE (5) CHANNELIZING DEVICES SHALL BE USED TO FORM THE TAPER ON THE SHOULDER. DRUMS, , SHALL BE SPACED AT 50 FOOT CENTERS.

3. RAMP SIGNS SHALL BE DUAL MOUNTED ON MULTILANE RAMPS.

4. THE FLASHING ARROW PANEL SHALL BE IN ACCORDANCE WITH STD. DRWG. TC-35.10.

5. THE WORK TRUCK SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THIS TRUCK SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMAN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF WORK TRUCK SHOWN WHEN APPROVED BY THE ENGINEER. A TRUCK MOUNTED IMPACT ATTENUATOR MAY BE EMPLOYED.⊕

6. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON ALL DRUMS FOR NIGHT LANE CLOSURES.

7. TAPER FORMULAE:

   L = S × W FOR SPEEDS OF 45 OR MORE.
   L = WS²/60 FOR SPEEDS OF 40 OR LESS.

   WHERE:

   L = MINIMUM LENGTH OF TAPER.
   S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85 PERCENTILE SPEED
   W = WIDTH OF OFFSET.

8. THE SPACINGS BETWEEN CONSTRUCTION AND MAINTENANCE SIGNS SHOWN ON THIS DETAIL MAY REQUIRE ADJUSTMENTS (INCREASES OR DECREASES) TO ASSURE THAT THEY ARE POSITIONED NO CLOSER THAN 200 FEET TO EXISTING SIGNS AS DETERMINED BY THE ENGINEER.

OHIO DEPARTMENT OF TRANSPORTATION

LANE CLOSURE AT ENTRANCE RAMP: PLAN A

DATE 8-3-79

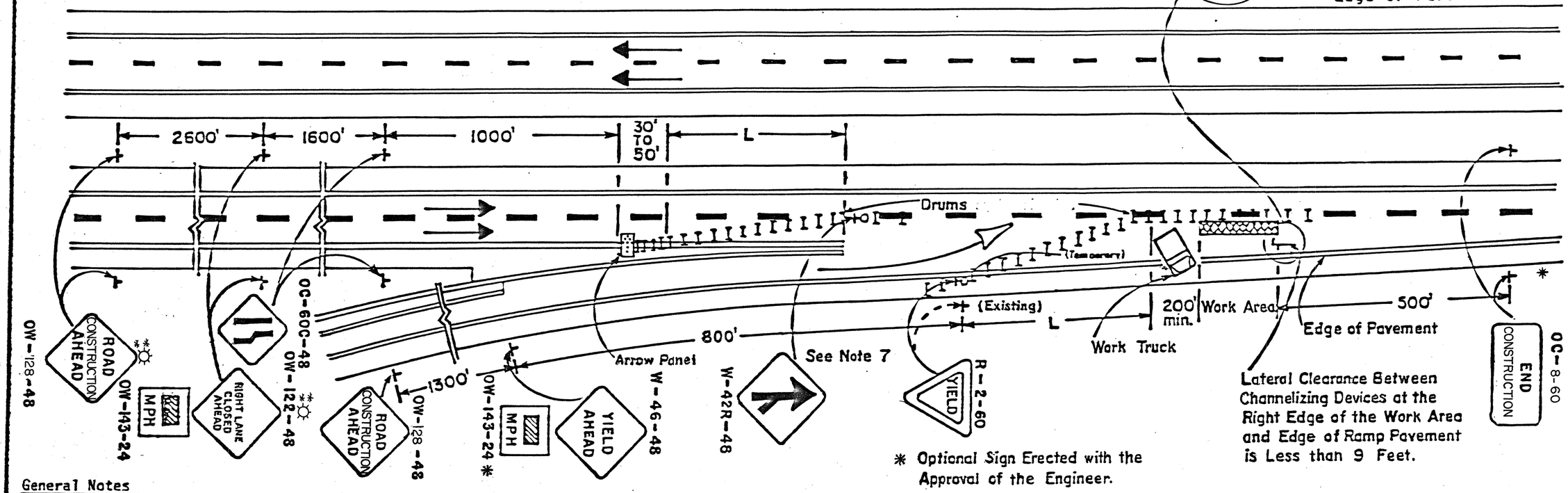
7K-5

Rev. EEF 9/84

CALC. BY		PLAN NO.	FED. RD. DIVISION	STATE	PROJECT	
DATE	2-29-88	FAI-70-0.00	5	OHIO		
CHECK. BY		LIC-70-0.00				
DATE	3-4-88					

**11. For night closures, each of the first two signs in the sequence (ROAD CONSTRUCTION AHEAD and RIGHT LANE CLOSED AHEAD) is required to be supplemented by a Type A flashing barricade warning light.

⊕12. Work vehicles shall be equipped with a 360° rotating or flashing amber beacon clearly visible a minimum of 1/4 mile.



* Optional Sign Erected with the Approval of the Engineer.

General Notes

1. This work area traffic control application shall be employed when the lateral clearance between channelizing devices at the right edge of the work area and the edge of the ramp pavement is less than 9 feet. When the clearance is more than 9 feet, the traffic control on "Lane Closure at Entrance Ramp: Plan A" should be used, or the ramp should be closed. When the ramp is closed, appropriate detour signs shall be provided.

2. Thirteen (13) drums shall be used to form the lane transition taper in advance of the work area. Five (5) channelizing devices shall be used to form the taper on the shoulder. Drums shall be spaced at 50 foot centers.

3. Ramp signs shall be dual mounted on multi-lane ramps. When the ramp is not long enough to allow placement as specified above, the signs may be spaced proportionately within the space available as determined by the Engineer (a 200' minimum spacing must be maintained).

4. The flashing arrow panel shall be in accordance with Std. Drwg. TC-35.10 Type C or D.

5. The work truck shown at the beginning of the work area shall be in place and unoccupied whenever men are working within the work area. This truck shall be moved from the pavement whenever workmen are not in the work area. Other protective devices may be used in lieu of work truck shown when approved by the Engineer. ⊕

6. Type C steady burning barricade warning lights shall be erected on ALL DRUMS for night lane closures.

7. It may be necessary to move the location of an existing Yield condition In these cases, the permanent R-2 sign installation shall be covered and the temporary installation shall be mounted upon a drive post which shall be banded to a drum with stainless steel strapping material or other techniques subject to the approval of the Engineer.

8. Taper Formulae:

   $L = S \times W$ for Speeds of 45 or more.
   $L = WS^2/60$ for Speeds 40 or less.

   Where:

   L = Minimum length of taper.
   S = Numerical value of posted speed limit prior to work or 85 percentile speed.
   W = Width of offset.

9. THE SPACINGS BETWEEN CONSTRUCTION AND MAINTENANCE SIGNS SHOWN ON THIS DETAIL MAY REQUIRE ADJUSTMENTS (INCREASES OR DECREASES) TO ASSURE THAT THEY ARE POSITIONED NO CLOSER THAN 200 FEET TO EXISTING SIGNS AS DETERMINED BY THE ENGINEER.

OHIO DEPARTMENT OF TRANSPORTATION

LANE CLOSURE AT ENTRANCE RAMP PLAN B	DATE 3-3-79

7K-6

Rev. EEF 9/84

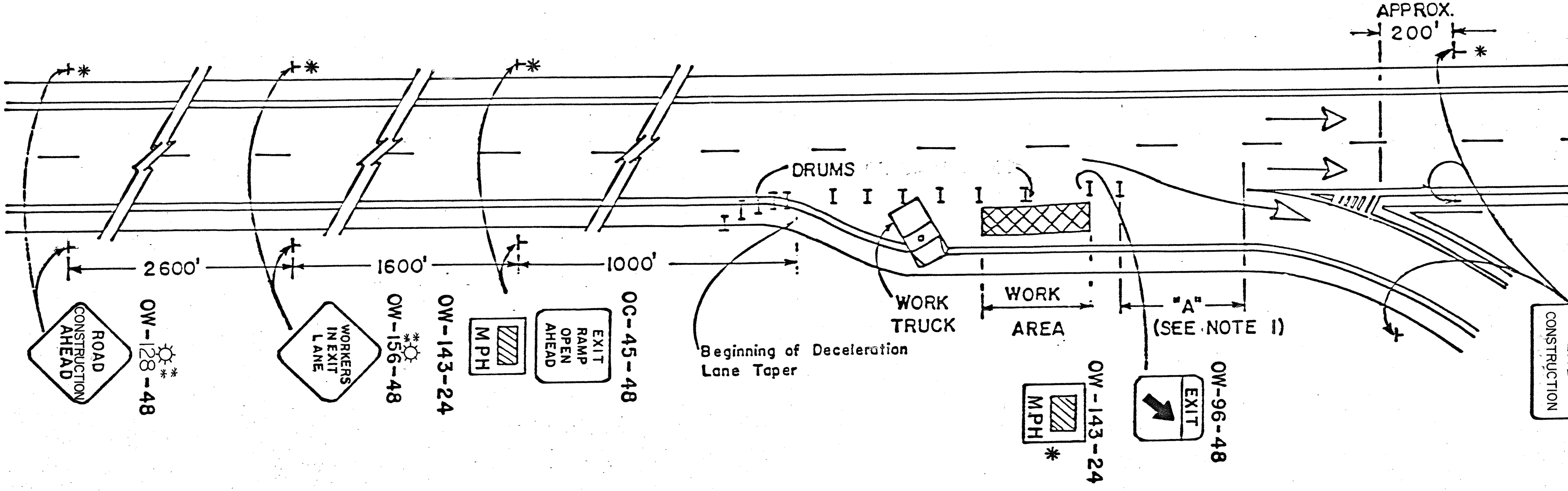
CALC. BY	DATE	CHECK. BY	DATE
[illegible]	2-29-88	RM	3-4-88

FAI-70-0.00
LIC-70-0.00

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

125 / 126

PLAN NO.



* OPTIONAL SIGN ERECTED WITH THE APPROVAL OF THE ENGINEER.

GENERAL NOTES.

1. THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL ONLY APPLY WHEN THE DISTANCE "A" IS GREATER THAN 100'. WHEN DISTANCE "A" IS LESS THAN 100', THE RAMP SHALL BE CLOSED. WHEN THE RAMP IS CLOSED, THE TRAFFIC CONTROL SHALL INCLUDE DETOUR SIGNING FOR EXIT RAMP CLOSURES IN ACCORDANCE WITH OMUTCD.

2. DRUMS SHALL BE SPACED AT 50 FOOT CENTERS.

3. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON ALL DRUMS FOR NIGHT LANE CLOSURES.

4. THE WORK TRUCK SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THIS TRUCK SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK TRUCK SHOWN WHEN APPROVED BY THE ENGINEER. ⊕

5. THE SPACINGS BETWEEN CONSTRUCTION AND MAINTENANCE SIGNS SHOWN ON THIS DETAIL MAY REQUIRE ADJUSTMENTS (INCREASES OR DECREASES) TO ASSURE THAT THEY ARE POSITIONED NO CLOSER THAN 200 FEET TO EXISTING SIGNS AS DETERMINED BY THE ENGINEER.

**6. *FOR NIGHT CLOSURES, EACH OF THE FIRST TWO SIGNS IN THE SEQUENCE (ROAD CONST. AHEAD AND WORKERS IN EXIT LANE) IS REQUIRED TO BE SUPPLEMENTED BY A TYPE A FLASHING BARRICADE WARNING LIGHT.*

⊕ 7. *WORK VEHICLES SHALL BE EQUIPPED WITH A 360° ROTATING OR FLASHING AMBER BEACON CLEARLY VISIBLE A MINIMUM OF 1/4 MILE.*

OHIO DEPARTMENT OF TRANSPORTATION

LANE CLOSURE IN DECELERATION LANE

DATE 8-3-79

Rev. EEF 9/84

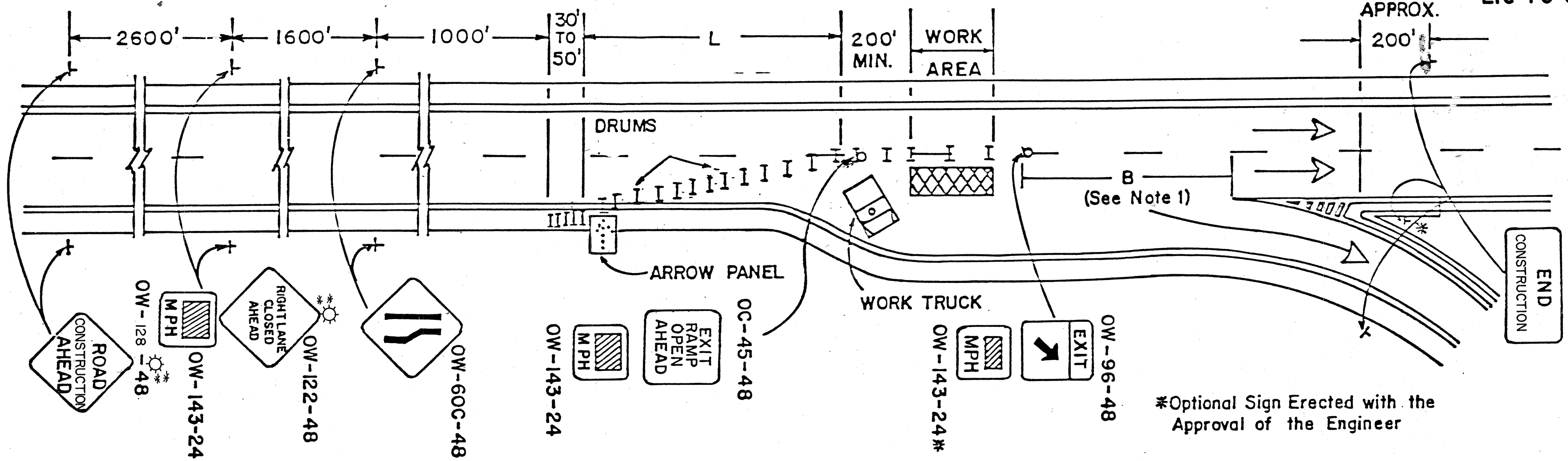
****10.** For night closures, each of the first two signs in the sequence (ROAD CONSTRUCTION AHEAD and RIGHT LANE CLOSED AHEAD) is required to be supplemented by a Type A flashing barricade warning light.

⊕11. Work vehicles shall be equipped with a 360° rotating or flashing amber beacon clearly visible a minimum of 1/4 mile.

CALC. BY	D.W.	FED. RD. DIVISION	STATE	PROJECT	
DATE	2-29-88	5	OHIO		
CHECK. BY	RM				
DATE	3-1-88				

PLAN NO.

FAI-70-0.00
LIC-70-0.00



GENERAL NOTES

1. THIS WORK AREA TRAFFIC CONTROL APPLICATION SHALL ONLY BE USED WHEN THE DISTANCE "B" IS 100 FEET OR GREATER. WHEN "B" IS LESS THAN 100 FEET, THE TRAFFIC CONTROL SHOWN ON THE "LANE CLOSURE AT EXIT GORE" DETAIL SHOULD BE USED, OR THE EXIT SHOULD BE CLOSED, OR THE TRAFFIC CONTROL ON THIS DRAWING MAY BE USED WITH APPROVAL OF THE ENGINEER. WHEN THE EXIT IS CLOSED, APPROPRIATE DETOUR SIGNS SHALL BE PROVIDED.

2. WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY, REFER TO THE TYPICAL WORK AREA TRAFFIC CONTROL SHOWN IN FIGURE C-21 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

3. THE WORK TRUCK SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THIS TRUCK SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK TRUCK SHOWN WHEN APPROVED BY THE ENGINEER.⊕

4. THE FLASHING ARROW PANEL SHALL BE IN ACCORDANCE WITH *Std. Drwg. TC-35.10*

5. THIRTEEN (13) DRUMS SHALL BE USED TO FORM THE LANE TRANSITION TAPER IN ADVANCE OF THE WORK AREA. FIVE (5) CHANNELIZING DEVICES SHALL BE USED TO FORM THE TAPER ON THE SHOULDER. DRUMS SHALL BE SPACED AT 50 FOOT CENTERS.

6. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON ALL DRUMS FOR NIGHT LANE CLOSURES.

7. TAPER FORMULAE:

   $L = S \times W$ FOR SPEEDS OF 45 OR MORE
   $L = WS^2/60$ FOR SPEEDS OF 40 OR LESS.

   WHERE:

   L = MINIMUM LENGTH OF TAPER.
   S = NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85 PERCENTILE SPEED.
   W = WIDTH OF OFFSET.

8. THE SPACINGS BETWEEN CONSTRUCTION AND MAINTENANCE SIGNS SHOWN ON THIS DETAIL MAY REQUIRE ADJUSTMENTS (INCREASES OR DECREASES) TO ASSURE THAT THEY ARE POSITIONED NO CLOSER THAN 200 FEET TO EXISTING SIGNS AS DETERMINED BY THE ENGINEER.

OHIO DEPARTMENT OF TRANSPORTATION	
LANE CLOSURE BEFORE EXIT GORE	DATE 3-3-79
DR CK –	

Rev. EEF 9/84